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REPORT

ON THE

HEALTH AND SANITARY CIRCUMSTANCES

OF THE

County Borough of Northampton

FOR THE YEAR 1923.

J. DOIG McCRINDLE,
Medical Officer of Health,
School Medical Officer, and
Chief Tuberculosis Officer.

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REPORT

On the HEALTH AND SANITARY CIRCUMSTANCES

of the

COUNTY BOROUGH OF NORTHAMPTON,

FOR THE YEAR 1923.

To the Mayor, Aldermen, and Councillors of the County Borough of Northampton.

Mr. Mayor and Gentlemen,

In prefacing this report on the Health and Sanitary Circumstances of the County Borough of Northampton for the fifty-two weeks ended 29th December, 1923, I have to indicate that like its immediate predecessors it adheres as closely as possible to the plan suggested by the Ministry of Health in the circular letter of December, 1921. It is of the type termed in this circular " ordinary " in contrast to the larger and more detailed " survey report," which is asked for periodically. Brevity, therefore, as far as it is compatible with due information on all essential points, has been the aim in its preparation.

A glance at the chief figures will shew that in general the health of the Town has not suffered appreciably from the abnormal conditions which still prevailed, such as the poverty from continued unemployment and still enhanced cost of living. In spite of municipal enterprise, the effect of such was by no means lessened by the scarcity of houses, with its consequent overcrowding and hindrance of effort to bring existing houses up to the level of comfort deemed desirable in the interests of health. That this effort required encouragement rather than hindrance is evident from the unsatisfactory state of much of the present housing accommodation shewn in the brief references in the report to the results of the recent survey. These, incomplete in detail as they are, indicate conditions even worse than was forecasted in the scheme submitted to the Ministry in 1919.

Fortunately there was no serious outbreak of disease. Influenza, though somewhat prevalent during the earlier months, had not the influence on the public health that we have been accustomed to associate with it of late years. Smallpox, though increasing all around us, did not actually invade the Town and none of the other communicable diseases seriously affected the death-rate. There has been a noticeable increase in the prevalence of scarlatina in the last two years, after a period of comparative quiescence. This is in keeping, however, with past history and is commented on in the body of the report. In contrast to this is the decline in the incidence of diphtheria.

Infant mortality has remained comparatively low and there is a further improvement in the statistics regarding tuberculosis. There is little difference from last year in the birth-rate, but it is a point to note that the number of males born, which is almost invariably greater than that of females, fell considerably below that number in 1923. If the mortality amongst boys in the first few years of life exceeds as it usually does that amongst girls, the effect of this drop will be to aggravate the present shortage of males in the Town, following on the results of war and shewn in the tables prepared from the census report.

The publication of a volume of this census report, dealing with the statistics of the population of Northampton County and Town, is referred to on page 6. It contains much valuable information, without which a proper estimate of the health of the community and its various sections would be impossible. Further details in regard to our staple industry are awaited, which will be published in a subsequent volume relating to occupations, and until this is available more definite statements in regard to the health of the workers than those already hazarded (page 30) can hardly be made.

Embodied in the report are the usual statements of the Assistant Medical Officers, Dr. Rowland and Dr. Shaw, on the details of the work of the sections of which they are in charge. Those of Dr. Mason, Assistant School Medical Officer, and Mr. Anderson, School Dentist, form part of a separately published report on the school medical service.

I have to mention that Dr. Rowland was appointed Deputy Medical Officer of Health in the early part of the year, in succession to Dr. Skinner, who left the service of the Corporation in 1922.

With the usual acknowledgement of the loyal support of my Staff and the kind assistance of my colleagues

I remain,

Your obedient Servant,

J. Donald McCrindle.

Public Health, Department,
Guildhall, Northampton,
June, 1924.

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CHIEF FIGURES, 1923.

Estimated Population at Mid-year, 1923 (from Registrar General)	93,230
Birth-rate	17·8
Death-rate	11·6
Infant Mortality	57·2
" Zymotic Death-rate "	0·28
Death-rate from Pulmonary Tuberculosis	0·90
Death-rate from Other Tuberculous Diseases	0·17
Total Death-rate from Tuberculosis	1·07

	MALES.	FEMALES.	TOTAL.
Births	797	865	1,662
Deaths	531	555	1,086

Area of Borough (in acres)	3,469
Inhabited Houses (Mid-year, 1923)	20,950

Density of Population (Estimated Mid-year, 1923) :—
26·9 Persons per Acre.
4·4 Persons per House.

Rateable Value (end of 1923)	£446,717
Yield of One Penny Rate	£1,765

1.—NATURAL AND SOCIAL CONDITIONS.

Population

The estimated population of Northampton in the middle of 1923 is 93,230. This is the figure given by the Registrar General and represents an increase in the previous year of only 280. The natural increase, as may be seen from Table 1, which represents the excess of births over deaths during the year, was 576. No doubt the discrepancy between the two figures is represented by emigration from the Town, a movement outward to the outlying districts where many of the new houses have been built.

Census, 1921

The publication comparatively recently by the Registrar General of a volume of the Census of England and Wales, 1921, devoted mainly to statistics relating to the County of Northampton and its associated County Borough, was a matter of considerable interest from the local public health point of view. This contains much important information on the constitution of the population and its distribution at the date of the Census (19th–20th June, 1921) and from it the following particulars have been abstracted in addition to those contained in Tables 2 and 3 in Appendix III.

The actual increase in the population during the decennial period since 1911 was only 831 (0·9 per cent.), though there were actually 5,641 more births than deaths. The difference between this figure and that representing the actual increase is apparently accounted for by deaths which occurred abroad due to the war, and by loss from emigration beyond the Borough boundaries. The census population is made up of 42,871 males and 48,024 females, a ratio of 1,120 females to each 1,000 males.

Population figures for each ward are stated in Table 2. During the 1911–1921 intercensal period the number of wards was increased and the areas of some were rearranged, hence the corresponding data were not given in the 1911 Census Report. In the new returns, however, the information relating to the wards as now constituted is supplied to enable desirable comparisons to be made. It is hoped to use this in next year's report which, in accordance with suggestions of the Ministry of Health, should be a "Survey Report" of a fuller character than its recent predecessors.

A table (No.3) has been prepared shewing the distribution of the population of the Town in 1921 as regards age and sex and marital conditions.

There were at the time of the Census 19,893 structurally separate dwellings occupied by 21,979 private families. The term "structurally separate dwelling" is taken as the housing unit and is defined as "any room or set of rooms intended or used for habitation having separate access either to the street or to a common landing or staircase." The average size of the dwellinghouse occupied by a private family is 5·66 rooms; the average number of families per dwelling is 1·10 and of persons per family 4·01, this latter representing a reduction from 4·45 at the time of the previous enumeration. The number of rooms per person was 1·27. The population living more than two persons per room is given in 1921 as 2,393, while in 1911 it was only 962.

Births and Birth-rate

There were 1,662 births registered during the year, rather more than in 1922. The birth-rate was 17·8 per thousand and that for the country 19·7. Fifty-six were illegitimate (3·4 per cent.).

Deaths and Death-rate

The number of deaths registered was 1,086 and the rate 11·6. This is an exactly similar rate to that for the whole country. In the last ten years, with the exception of 1914 and 1915, the death-rate for Northampton has been consistently below that of England and Wales. It is somewhat higher than for three years past.

The proportion of deaths in which there was no medical certificate of the cause was 4·8 per cent. (" inquests " 47, " uncertified " 5). Deaths of elderly persons (65 years and upwards) accounted for 43·3 per cent. of the total. 325 persons, including both residents and non-residents, died in various institutions in the Town; this represents more than a quarter of the total deaths.

Social Conditions

There was still a considerable amount of unemployment in the Town during the year, although judged from information supplied some decrease was shewn. During the latter half of the year, the average weekly number employed by the Distress Committee was 427, but there seemed always to be applicants for whom no work was provided. These figures refer only to married men and the Committee has not been able to entertain applications from single men during the past eighteen months.

In addition there were at the end of the year 177 able-bodied men unemployed in receipt of relief from the Guardians, along with 105 wives and 199 dependent children, making a total of 481.

Other Statistics

Reference will be made later to housing conditions, as well as to infant mortality and to the existence of infectious disease and its effects.

II.—SANITARY CIRCUMSTANCES.

Water Supply

The abnormal conditions described in the immediately preceding reports in connection with Northampton's water supply had disappeared at the beginning of the present year and the reservoir from which most of the supply is obtained was quite full by the beginning of March. The emergency supply obtained from the river gravel at the Brampton Crossing was discontinued in August, 1922, and during 1923 there was no evidence of any immediate shortage of water.

During the year, sixteen samples were submitted for bacteriological examination and seventeen reports were presented in connection with these. Most of the samples were taken at the point of delivery to the consumer, but on at least two occasions the water at the reservoir was examined. The general character was little changed from that in previous years. No typical B. Coli was found, although the presence of some atypical bacillus belonging to the same group is repeatedly mentioned. This appears to be a fairly constant feature of the Northampton water supply and is seemingly of little pathological importance.

Chemical analyses were only undertaken on four occasions and the samples were mostly from private wells. They disclosed no evidence of recent pollution.

Drainage and Sewerage

There is a considerable proportion of older buildings in the Town in which the drainage is defective and this receives attention as it comes to our notice year by year. The sewers, however, in many districts are inefficient, being too large to permit of the flow necessary for cleansing purposes and complaints of the escape of sewer gas into the atmosphere are very frequent, particularly in the higher parts of the Town. I believe that little short of entire reconstruction of many of our sewers will materially alter this. I have pointed this out before and still receive complaints.

Scavenging

In the report for 1922 I emphasised as strongly as I could the utter inefficiency of our present methods of scavenging and I am afraid little, if any, progress is evident towards improvement. I believe the matter is under consideration and there have been some experiments with newer methods.

Sanitary Inspection

The work of sanitary inspection is again summarised in Tables 6, 7, and 8. Largely due to the increase in cost it is still difficult to get sanitary work done. In one or two instances it was necessary to prosecute. These will be referred to again in the section on Housing.

House Inspection

The housing survey which has been in progress during the last three years has now been completed. The section on Housing contains fuller reference to this.

Outside this housing survey there were 2,247 houses inspected for one purpose or another throughout the year. This is an increase of 423. 1,138 of these were found to require attention ; 582 houses were repaired ; 628 were cleansed and whitewashed, and others were dealt with for various conditions, details of which are set out in Table 6. Altogether 642 statutory notices were served.

Rag Flock Act, 1911

Under the terms of this Act, thirteen inquiries have been instituted by the Chief Sanitary Inspector about the rag flock used for upholstering. He was satisfied each time by reference to printed invoices that the flock supplied had been guaranteed by the makers to meet the requirements of the Act as to cleanliness. It was unnecessary, therefore, to proceed further.

Common Lodging Houses

The Inspector of the Common Lodging Houses (Mr. J. Walker) reports that the four houses on the register have been regularly visited during the year. No serious complaints have been received and the periodic whitewashing and cleansing, as required by the Act, have been duly carried out. There is little objection to be found with the general conduct and management of these premises.

Canal Boats

The Inspector of Canal Boats is Mr. B. Knowles and the report, which is on the same lines as previous years, was submitted, as required by the Acts, in the month of January. Thirteen boats were inspected, registered to carry forty-four adults and four children, although twenty-four adults and seventeen children were actually in occupation. No infringements occurred and, therefore, no legal proceedings were necessary. No cases of infectious diseases were notified. The number of boats on the register known to be in use is eight.

Offensive Trades

There are ten of these which, as usual, are kept under supervision. They appear, however, to have been conducted in a satisfactory way, as we have had no complaints and no serious nusiance has been noted, nor have the requirements of the byelaws been evaded.

Premises Controlled by Byelaws, etc.

These, other than the above-mentioned, are considered in the section on food, as they comprise cowsheds, milkshops, bakehouses, slaughterhouses, etc.

Smoke, etc. Nuisances

Compared to most manufacturing towns there is no serious pollution of the atmosphere in Northampton by dense black smoke, but now and again complaints mostly justified are received of this nuisance and of similar ones from the burning of leather chips or emission of leather dust. It has not been necessary to take legal action ; usually the cause of complaint is removed, temporarily at least, after inspection and correspondence. If the present tendency to increase the nuisance continues, further action may be required in the future. In order to obtain evidence thirty observations of the premises complained of were required.

Schools

The Medical Officer of Health is the School Medical Officer, being responsible for the whole administration of this sub-department on behalf of the Education Committee. In May, the Assistant School Medical Officer, Mr. J. H. Mason, M.B., D.P.H., took up the duties of Medical Inspector and Medical Officer in charge of the School Clinic. Dr. Mason was at the same time appointed Assistant Medical Officer of Health in order to complete the co-ordination in the services.

Periodic reports are made to the Education Committee and the Annual Report on the school medical service is printed separately from the present document.

As the services are now under one general administration, it is easy to arrange for mutual assistance in regard to the personnel and in the interchange of records and other information. The paragraph on school hygiene in the School Medical Report alluded to, contains a statement of the sanitary and other conditions of the schools under the Education Authority and also information concerning the incidence of infectious disease. School attendance was very little interfered with by the latter except during the early months of the year when influenza was prevalent. It is the duty of head teachers to report each week to the medical department all households from which children attend school and in which infectious disease is suspected. In this way nearly three thousand cases of influenza were brought to our notice, over nine hundred of them in the week ended 10th February. The outbreak, however, subsided very quickly and actual school closure was not needed. There was no serious incidence of measles or chickenpox and although the numbers from scarlet fever were decidedly increased, there was no evidence that school closure would have diminished the spread.

III.—FOOD.

Milk Supply

The sources of the Town's milk supply were described in a recent report, to which reference should be made for information as little change occurs from year to year.

Milk (Special Designations) Order, 1922

In connection with the Special Designations Orders made under the Milk and Dairies (Amendment) Act, 1922, the intention of which is to raise the standard of milk sold, there were three licences issued. Two of these were given under the 1922 Order and the third under the Order of 1923, which superceded the older one and came into force on 1st July. One licence for the production and sale of "Pasteurised" milk was granted to a firm which is probably the largest retailer in the Town, and two to another large firm of milksellers. In the first instance this latter firm obtained a licence to sell "Grade A (Tuberculin Tested)" milk, but owing to the difficulty experienced in keeping up supplies the sale was dropped and application made for the sale of "Grade A" only. To encourage such efforts to raise the standard this firm has received a contract under the assisted milk scheme of the Maternity and Child Welfare Committee.

Dairies, Cowsheds, and Milkshops

The inspection and supervision of these is entrusted to the district sanitary inspectors. The names of 207 milksellers and twenty cowkeepers were on the registers at the close of the year and visits to their premises numbered 388. At twenty-one, infringements of the bye-laws and regulations or other defects were found and they were promptly remedied when pointed out. It was quite unnecessary to take any legal proceedings. Thirty-four new certificates of registration were issued, some of these being only transfers where businesses had changed hands.

Milk and Cream Regulations, 1912 and 1917

For the record of the work done under these Regulations the Ministry has issued a special form of report, and what follows is set out as suggested. There is little difference in this report from that of preceding years :—

1.—*Milk; and Cream not sold as Preserved Cream.*

	Number of Samples examined for the presence of a Preservative.	Number in which Preservative was reported to be present, and percentage of Preservative found in each Sample.
Milk	163	nil.
Cream	13	3*

*The samples contained 0·56 per cent., 0·17 per cent., and 0.06 per cent. respectively of boric acid. The vendor of the first sample was warned ; the other two were asked for explanations.

2.—*Cream sold as Preserved Cream.*

(*a*) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(i) Correct statements made	3
(ii) Statements incorrect	0
Total	3

(iii) Percentage of Preservative found in each Sample.	Percentage stated on Statutory label.
0·18 per cent.	Labelled not to contain more than 0·4 per cent.
0.10 per cent.	
0·10 per cent.	

(*b*) Determinations made of milk-fat in cream sold as preserved cream.

(i) Above 35 per cent.	3
(ii) Below 35 per cent.	0
Total	3

(*c*) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed .... nil.

(*d*) Particulars of each case in which the Regulations have not been complied with and action taken .... nil.

3.—*Thickening Substances.*

Any evidence of their addition to cream or to preserved cream. Action taken where found .... nil.

4.—*Other Observations, if any* .... nil.

Meat and Food Inspection

One of the staff is specially appointed as a food inspector and under the general supervision of the Chief his duties are shared by two of the district inspectors, who are qualified by certificate. This has been the arrangement for some years and has proved satisfactory.

Slaughter-houses

There are still fifty-four private slaughterhouses on the register. 4,195 visits were paid to these during the year, all except 213 while slaughter was in progress. The latter comprised chiefly visits by the district inspectors for the purpose of ascertaining if the terms of the bye-laws were observed, particularly in regard to periodic cleansing and whitewashing.

I have again to refer to the lack of a public abattoir, which not only very greatly increases the difficulties of efficient supervision, but makes this much more costly than it need be. Unfortunately, the powers we possess for closing unsuitable private premises are limited.

Mechanical Methods of Slaughter

In connection with this subject I have to mention a matter which occupied the attention of the Council and the Department during the latter half of the year and the earlier months of 1924. This was over an agitation for the compulsory use of mechanically operated instruments in the slaughtering of animals for food. Although quite a year before the Department had given some attention to the subject and had been in communication with other authorities and with the persons interested on both sides, it was not till June, 1923, that the question came prominently to the front by the receipt of a copy of a resolution, passed at a public meeting in the Town, asking the Council to make the use of such mechanical instruments compulsory by the adoption of a bye-law similar to No. 9 (B) of the model bye-laws issued from the Ministry of Health. The butchers of the Town protested against such action and the Public Health Committee met a deputation of their local association which urged that there was no avoidable cruelty in the present methods, that the new instruments were not more efficacious, were not without danger, and their use affected the quality of the meat. The Committee also met a deputation of the National Society for the Prevention of Cruelty to Animals which advocated the use of these instruments and put forward statements opposing each of those of the butchers. I prepared a report describing the present methods, summarising records of the experience obtained from many other local authorities, which had already adopted such a bye-law, and suggesting that each side should demonstrate to the Committee its methods in actual practice. Such a demonstration was arranged for, after some difficulty and delay, took place early in 1924, and was attended by most of the members of the Public Health Committee. After further consideration the Committee decided to advise that no action should be taken in the meantime and this was accepted by the Council in March, 1924. In my report to the Committee I stated my opinion that in Northampton the provision and compulsory use of a public abattoir would be more effective in ensuring the maintenance of these humane methods so much desired than any mere bye-law, compliance with which it might be necessary to enforce under supervision in the each of the fifty-four private slaughterhouses now on the register.

Disease in Meat

Tuberculosis continues to be the chief disease found in meat and Table 9 sets forth the numbers of carcases dealt with shewing separately those affected with this disease, which included no less than 65·5 per cent. of whole and 87·5 per cent. of part carcases of beef and pork condemned.

Appendix III. contains the usual tables summarising the meat and other food condemned. There were no seizures.

Section 117 of the Public Health Act, 1875

Twice food was dealt with by a magistrate on the application of an inspector, but there was no prosecutions as the condemned meat had been previously surrendered voluntarily.

Bakehouses

One hundred and seven of these premises were still in use when the year closed. The supervision of these necessitated 330 visits, when sixty-two infringements were discovered and remedied within a reasonable time.

Other Premises dealing with Food

There were 1,208 visits of inspection to other premises where food is manufactured, stored, or exposed for sale. Twenty-seven occasions of nuisances or other matters requiring attention were reported. These were successfully managed by the Department.

Included in these were twenty visits made to premises registered for the purpose of wholesale dealing in margarine. There are twenty-three premises on the list, two having been added during the year.

The above total also includes 119 visits to places where ice cream is made.

Food Poisoning

Again there was no outbreak of food poisoning during the year. Any complaints received suggesting such were found after inquiry to be quite trifling or to have no real foundation in fact.

Sale of Food and Drugs Acts

The samples sent to the Public Analyst under the terms of these Acts numbered 282, sixty-two of which were procured informally (22.0 per cent.). Of the total, thirty-five were reported by the Analyst as not genuine. Informal samples were taken as a means of affording useful information previous to further official action. The informality of the procedure is such that no suspicions are aroused and further operations, if desirable, are not prejudiced. No legal action can be taken, of course, unless the proper official procedure follows. Table 12 deals with the work under the Sale of Food and Drugs Acts and is divided up shewing both the official and informal samples and the result of the analysis. The proportion of samples not genuine, which was 12·4 per cent., is an increase on the previous year's record, but as that was probably the lowest we can shew for the last twenty years the present proportion is still below the average. The chief article of food found not to be genuine was milk and this is so invariably the case and the importance of milk as an article of diet is so great that a large part of our effort is concentrated in watching this food. The only other adulterations were those of cream, which usually means the presence of preservative, and the same condition was observed in regard to sausages. Elsewhere where the sample was reported as not genuine, it was mainly a matter of the ingredients in certain common drugs.

During the previous year the Ministry of Health had issued a circular (No. 325) which was taken to suggest that in many cases where milk samples were found not genuine owing to deficiency in fat, further samples should be procured before prosecuting, except in dealing with known offenders. On a number of occasions, therefore, when the subsequent sample procured turned out to be genuine no legal action was taken and on others the departure from normal was considered so slight that a warning only was sent. These were the courses of action in fourteen of the twenty-one instances where the milk was found not genuine. Fortunately the Ministry, after numerous protests, saw fit to withdraw the circular in May, 1923, and a rather serious obstacle in the path of those charged with safeguarding the purity of the milk supply was removed. In regard to the other seven samples found defective, prosecutions were instituted. Each of two vendors was fined £5 with five shillings costs. Three others were fined sums varying from one shilling to £1 16s. with costs. One of these was at the same time summoned for obstruction in refusing to sell on the inspector's demand. Although it appeared to be a flagrant example of obstruction the Bench was not convinced and the defendant escaped on the payment of costs. The two remaining were dismissed as the vendor proved that the milk was delivered as it came from the cow. The sample of cream adulterated was dealt with under the Milk and Cream Regulations, the explanation given being considered satisfactory. In the case of the ipecacuanha wine which was found to be deficient in alkaloids, the vendor was warned. The Executive Committee of the Public Health Committee decides the action to be taken in all instances of adulteration.

IV.—PREVALENCE OF AND CONTROL OVER COMMUNICABLE DISEASES.

" Zymotic Death-rate "

The number of deaths from the so-called " zymotic diseases " was twenty-six, which gives what is termed a " zymotic death-rate " of 0·28. This is practically the same as in the previous year and is well below the average of the last ten years. It may be considered, therefore, as quite satisfactory.

Measles, Rubella, and Whooping Cough

Again I have to record the comparatively small incidence of these diseases in the Town. At the end of 1922 there was a rise in the number of measles cases and this continued for a couple of months in the present year. Since then the number reported from the schools has been negligible. Seven deaths occurred, almost all before May. There were no deaths from whooping cough and only twenty-one suspected cases were reported by teachers. The death-rates from measles and whooping cough respectively in Northampton were 0·07 and 0·00, but in the whole country these were 0·14 and 0·10.

Diarrhœa and Enteritis

This subject is dealt with in the Report on Maternity and Child Welfare of the Assistant Medical Officer, which appears as Appendix II. Nine deaths occurred all in children under a year old and the death-rate per thousand births registered was 5·4, contrasted with 7·7 for England and Wales. Although this slightly exceeds that of last year, it is evident from it and those of late years that this disease has had little influence on the death-rate.

Influenza

There was considerable prevalence during the first three months of the year, but no such alarming outbreak as most of those experienced since the end of the war, either in extent or character. A total of nineteen deaths was recorded, ten of which were from influenzal pneumonia. The death-rate was 0·20, which is a vast improvement on the previous year's figures (0·46) and is lower than the rate for England and Wales, which was 0·22. Reference is made in the paragraph on pneumonia to this complication.

Erysipelas

Of this disease, thirty-two cases were notified, most of them of a mild evanescent character. There were, as in 1922, two deaths. One of these occurred at the General Hospital, was not notified beforehand, and appears to have been partly due to blood poisoning. The second was that of a Northampton resident living temporarily at Stoke Gifford concerning which no further information was available.

Cerebro-spinal Fever, etc.

The only instance of cerebro-spinal fever brought to our notice was that of a military patient living outside the Town and admitted to the General Hospital. It is not included, therefore, in the local statistics. The man died.

Two cases were notified of acute anterior poliomyelitis, the evidence in the first being of a very indefinite character, but the second was genuine without doubt. The patient, a child of four years of age, after experiencing a short sharp attack was left with a considerable amount of paralysis, which is now slowly passing off. The cause in neither case could be found and no further spread has taken place.

Three cases of encephalitis lethargica, known popularly as "sleepy sickness," were notified. Two were in residents outside the Borough admitted to the General Hospital. The other, a townsman of forty, was also removed to the General Hospital, remained under treatment for some time and was subsequently discharged in process of slow recovery.

Enterica

Included under this term are those cases of typhoid fever and paratyphoid fever A and B which were notified during the year. Of these there were ten. Four were notified as typhoid fever and the remainder as paratyphoid B.

Of the typhoid fever cases, one proved on subsequent observation not to be such and in another the evidence was so indefinite, both clinically and bacteriologically, that it can be excluded also. These two were under observation in the Borough Hospital. The remaining two believed to be genuine were undoubtedly infected outside the Town and neither spread the infection.

Amongst the paratyphoid cases, one occurred in a woman from the County sent into the General Hospital and is excluded from the Town records. Of the others, three were admitted to the Borough Hospital and the clinical character of the disease in each was so mild that doubt would have been thrown on the diagnosis but for the bacteriological findings. The last two appeared to be clinically true cases of paratyphoid, the diagnosis of which was confirmed in the laboratory.

Each of the true cases represented a separate outbreak as no connection between them could be traced. There were no deaths ; the death-rate for England and Wales was a very light one (0.01).

Smallpox and Vaccinia

Outbreaks of mild smallpox of the "American" type throughout the country continued as in 1922. The numbers, however, materially increased and I can only consider it a piece of remarkable good fortune that we escaped contamination. Altogether in the country there were notified during the year 2,473 cases. They were spread over twenty-nine counties or administrative areas in England and Wales and I have record of two deaths. Although this fatality is a very mild one, exceptionally so for this disease, it is the belief of most experienced epidemiologists that this mild character is not to be relied upon to continue. The most noteworthy local outbreak was that which occurred in and around the City of Gloucester, but the Counties of Derby and Nottingham also suffered severely. The mildness of the disease, although fortunate in one respect, adds greatly to the anxiety of those whose duty it is to endeavour to protect the community, as it renders extremely difficult the recognition of the earlier cases on which so much depends in a comparatively unvaccinated population like that of Northampton.

In regard to vaccination, I have to refer to the figures in Table 17, and have once more to thank the County Medical Officer of Health, Mr. C. E. Paget, for information from which this table has been constructed. The vaccinal condition of this community, it will be seen, has gradually reached a condition in which it will be of very little assistance in preventing the rapid dissemination of smallpox once it is introduced. It is fortunate that we have accommodation for isolating smallpox at the hospital near Hardingstone, ready at a few hours' notice but at best a poor inefficient substitute for a well vaccinated and revaccinated population. It is fervently to be hoped its efficiency may not be too severely tested.

Chickenpox

This disease was made compulsorily notifiable by Order of the Council confirmed by the Minister of Health in July and the Order came into force on the 17th of that month. This was one of the precautionary methods taken in view of the prevalence of a mild form of smallpox in some of the neighbouring counties owing to the frequency with which the two diseases are confused. From then till the end of the statistical year 228 notifications were received ; 130 of these were of males and 98 of females. All but about fifteen were under ten years of age, the greatest numbers occurring between the ages of five and ten. Unfortunately, with a disease which is usually very mild, many instances of its occurrence were overlooked or not considered of sufficient importance to make known, and in spite of the Order I am convinced that our notifications were by no means as valuable indications of the prevalence as in the other communicable diseases.

Of the 228 cases notified, 174 were primary cases in a household and only fifty-four secondary. Knowledge of the infectivity of the disease leads to the belief that this figure is absurd and that many more secondary instances must have occurred. Investigations were made in regard to 172 of these primary cases (101 males and 71 females). Most of the notifications had reference to households in Delapre Ward one of the smallest and most isolated in the Borough. At the same time it was common knowledge that the disease was disseminated widely, a further proof that the value of notification in locating this particular disease is greatly exaggerated.

When investigating the circumstances as a routine connected with each notified case the opportunity was taken to discover as far as possible the vaccinal condition of the members of each household, the primary object of the notification being the prevention of the spread of smallpox. My figures shew that there were 956 inmates of these households and the following is a summary of the information obtained on this point, viz. :—426 (44·5 per cent.) were stated to have been vaccinated primarily either in infancy or later ; 514 (53·8 per cent.) were said to be unvaccinated ; in sixteen (1·7 per cent.) information was not obtainable and seventy-one (7·4 per cent.) admitted re-vaccination. The latter were mainly those who had served in the late war. Although no doubt there is a good deal of inaccuracy in these data, it gives some indication of the present condition of things. It was noticeable that most who were vaccinated were amongst the older members of the family, corroborative evidence of the gradually increasing neglect of vaccination in recent years shewn in Table 17.

Scarlatina

From the list of 409 original notifications of this disease, nine were excluded on further observation as the diagnosis was not confirmed, along with five others from the General Hospital which concerned cases sent in from outside areas. The nett number of presumably genuine Northampton cases, therefore, was 395. One hundred and sixty-six of these were male and 229 female. These are set out in age groups in Table 19. The North Ward provided the greatest number mainly because of persistently prolonged outbreaks in connection with two of its institutions, Nazareth Home and the Infants' Department of St. George's public elementary school. In the former, difficulty in limiting the outbreak was due, I consider, to faulty internal arrangements at a time when the home was occupied to its fullest capacity, if not actually overcrowded, and in spite of regular prompt removal to hospital of each case as it arose, the infection, though spread over a long period, could not be eradicated easily. The latter was protracted owing to the difficulty in detecting some mild unrecognized cases which were undoubtedly the cause. The neighbouring wards of St. Lawrence's and St. Crispin's partook to some degree in this extension and a similar, but much smaller outbreak in Military Road School augmented this. The smallest number of cases occurred in Abington and St. Edmund's wards.

Reference to Table 18 will indicate that the prevalence of the disease in the Town has recently increased. There have not been so many cases reported annually since the last epidemic year (1915), although the present outbreak has not yet reached by any means the dimensions attained then. I have several times pointed out during the last year or two that, from our knowledge of the history of this disease, such a development was not unexpected. We have been looking for the periodic recrudescence, which occurred in the past fairly regularly about every five years. The local attack-rate for 1923 was nearly double that of the country, though in the preceding years when our attack-rate was low many other towns experienced similar epidemic waves which raised their rates much above that of Northampton.

There was no marked increase in the fatality, and the death-rate, although it has risen with the number of cases, does not shew a greater proportion of fatal instances. Six deaths were recorded, three of which occurred at the Borough Hospital. An opportunity is afforded by a glance at Table 18 of comparing the statistics relating to this disease in 1923 with those of several preceding years, shewing the incidence, death-rate, fatality, and the extent of hospital isolation deemed prudent.

Diphtheria

Diphtheria accounted for eighty-two notifications and in contrast to the last disease this is a marked improvement (*see* Table 20). The prevalence for the first time in the last four years was less than in the country in general. The attack-rate for England and Wales was 1·04 and for Northampton 0·88 per thousand. Subsequent observation proved that five were not real diphtheria cases and amongst the rest there were three sent in from districts outside the Town for treatment at the General Hospital and are not included in the nett local numbers. The presumably true Northampton cases numbered, therefore, only seventy-four, exactly half the similar total in 1922. Twenty-seven were male and forty-seven female and the age constitution is set out in Table 21. More originated from the Castle Ward and St. Lawrence's than from any of the others. There was no serious incidence in public elementary schools. Amongst the list of those notified in the first place there were six deaths, but only four were certified as primarily due to diphtheria. Of these four, three occurred before the receipt of notification and the fourth on the day following this receipt. The other two were certified as due primarily to tuberculosis from which condition the patients were suffering when notified as diphtheria cases. The death-rate of 0·04 compares favourably with that of England and Wales, which was recorded as 0·07. Amongst the Statistical Tables (Appendix III.) there is set out further information which may be of interest concerning this disease (*see* Tables 20, 21, and B.).

Two hundred and five doses of antitoxin for curative treatment were issued without charge to medical practitioners by the Public Health Department on application, at a cost of approximately £41. I would again refer in this connection, though I have no desire to unduly stress the matter, to the suggestion made in my last annual report (page 20) anent contributions from private and national insurance funds towards this cost which so far has been borne by the ratepayer. The above, of course, does not include that used in the Borough Hospital.

In only seven of the eighty-two notified cases is there no record of a bacteriological examination. Seventy were examined in this way before notification and the other five after admission to hospital. In sixty-nine the result was positive and in one it was doubtful. The doubtful case shewed after admission only negative results. The five which were examined after admission to hospital gave negative results consistently and were considered not genuine diphtheria. The above figures afford evidence of the continued popularity of this method of confirming diagnosis. The total number of specimens of secretions of the throat and nose submitted for bacteriological examination during the year was 712. This includes 386 from cases in the Isolation Hospital, some of which were from the ten left in that institution at the end of the previous year and taken for the purpose of determining the period of infectivity. I drew attention last year to the fact that there was possibly too great a tendency to wait for the result of a bacteriological examination before notifying. The type of the disease was uniformly so mild that it probably accounts for the hesitancy of the clinician to make a diagnosis without bacteriological help, but in cases which are more seriously ill, I think there is danger in thus delaying. If the first report from the laboratory does not corroborate the clinical diagnosis, it does not necessarily negative it, as even when the germ is present it is not always found on a single examination. The danger in delay in notifying pending such report can be mitigated by not withholding at the same time the administration of the antitoxic serum, which should be given promptly, even on suspicion, where the signs and symptoms are at all suggestive. This promptness is, in my opinion, of more importance than the dosage.

The laboratory work is carried out on behalf of the Public Health Department by the Pathologist at the General Hospital (*see* the paragraph below on bacteriology) and the record of what was accomplished during 1923 is published in a special table in the third Appendix (Table 26). Complete arrangements exist for the expeditious communication of the result, especially if positive, directly to the medical practitioners concerned, by telephone if possible, as well as to the Health Department. Such intimation is confirmed as soon as may be by a written report.

Borough Hospitals

There are three such institutions under the direct control of the Department.

SMALLPOX HOSPITAL, HARDINGSTONE. This was again kept in readiness for the immediate admission of any case of smallpox. The Matron of the Harborough Road Hospital has the care of the institution when not occupied and makes arrangements for its being kept clean and in readiness. With cases of smallpox occurring daily at no great distance from the Town, this is a matter of extreme importance. During the year the outside of the buildings was repaired and painted under the supervision of the Borough Engineer. Periodical visits are made by the Medical Officer of Health to assure himself that all is ready for any emergency.

WELFORD ROAD TUBERCULOSIS HOSPITAL. This is under the immediate charge of the Tuberculosis Officer under the general administrative supervision of the Medical Officer of Health and is used for the isolation, observation, and education of tuberculosis cases. The work of this hospital is referred to in Dr. Rowland's report (Appendix I.).

HARBOROUGH ROAD INFECTIOUS DISEASES HOSPITAL. This institution is more directly under the control of the Medical Officer of Health. The usual statistics are given in Table 22. In April, Miss Walker, who had been appointed Matron in the previous year, resigned and her place was taken by Miss Borton, who had hitherto held the post of Housekeeping Sister at the General Hospital.

Scarlatina. There were 233 genuine cases of scarlatina which completed their period of treatment within the year and were discharged after an average stay in hospital of 48·1 days. Three deaths occurred after an average period in hospital of 10·3 days. This is a larger number of deaths from scarlatina than we have had for a good many years.

The type of case was on the whole more severe in 1923 than in recent years and the complications were rather more numerous. The chief of these was inflammation of the glands of the neck resulting from an inflamed throat. Discharges from the ear and nose, also attributable to the throat condition, formed the next most frequent complication. Three instances of nephritis and four of albuminuria are the only others worth mentioning. Four apparently genuine cases contracted a second attack while in hospital and four others in which the diagnosis was doubtful developed the disease. Occasionally patients are admitted with communicable diseases other than scarlatina or with scarlatina combined with other communicable diseases and the infection is apt to spread if the greatest vigilance is not maintained. During the year there were seven cases of chickenpox and two of diphtheria amongst the scarlatina patients.

Diphtheria. Only fifty-four genuine cases were discharged after completing their period of isolation during 1923 and the average stay in hospital of these was 52·3 days. Only two patients died, after an average of 13·5 days under treatment. On the whole the type of diphtheria was distinctly milder and the number affected was much reduced.

The complications were very few and generally of much the same type as those in scarlatina.

Enterica. There were four genuine cases included in this group discharged during the year, two others which were admitted being found after observation not to be true cases. These four recovered after being in hospital an average of forty days. One of them was true typhoid fever and the other three belonged to the group known as paratyphoid B. All were extremely mild and no complications ensued.

"Return Cases." In these reports the definition adopted for " return cases " has been " all new cases of scarlatina that have " occurred in a household within a period not less than twenty-" four hours and not more than twenty-eight days after the " return of a previous patient from hospital."

There were seven cases of scarlatina which came into the category of hospital " return case." These were in connection with nine possible " infecting cases." The causal relationship between the most of these was very doubtful and in at least three an interval of over twenty-four days had elapsed between the return of the so-called " infecting case " from hospital and the onset of the initial symptoms in the " return case." Each was carefully gone into with a view to gaining information which will enable us to reduce the number of such occurrences to a minimum, but no new facts were brought to light. In the present state of our knowledge of the exact ætiology of this disease " return cases " cannot be avoided with any degree of certainty.

Pneumonia

(1) NOTIFICATION. (*See* Table B.). Cases of pneumonia and broncho-pneumonia are compulsorily notifiable which are primary only and such as follow in the course of influenza. This excludes pneumonia and especially broncho-pneumonia which is so frequently a complication of the children's diseases measles and whooping cough. Notifications of pneumonia within the above category numbered 354 and to these has been added fourteen patients who died of primary or post-influenzal pneumonia without the illness having first been notified :—

	MALES.	FEMALES.	TOTAL.
Number of Notified Cases	206	148	354
Deaths of Non-notified Cases ...	8	6	14
Totals	214	154	368

The average age of this total number (368) was 25·9 years—26·0 for males and 25·8 for females. Most of the deaths occurred amongst males in the 45–65 age group and females in the two groups 1–5 years and 25–45 years, while for the total number the most fatal age appeared to be the group 25–45. The disease was most prevalent in the Castle, St. James', North, and St. Lawrence's wards and the incidence was lightest in Abington, St. Edmund's, Kingsley, and South.

Amongst those cases there were eighty-one deaths—forty-seven of males and thirty-four of females—a fatality of 22·0 per cent. The disease was rather more prevalent in the earlier months of the year, during which influenza and post-influenzal conditions were more frequent. The greatest prevalence was in February, although some recrudescence occurred in the month of October.

Although pneumonia is included amongst the diseases thought to be communicated by personal contact, it was not often that evidence of its spread in households was procurable. Amongst those where full information was obtained, and this includes nearly all reported, our records shew that there were 340 primary outbreaks, forty-one of which were stated to be post-influenzal. In these households there were 1,645 contacts, but we have information of only eight possible secondary cases amongst them and in two instances the onset in the primary and secondary case was almost simultaneous. In other four the disease was stated to be post-influenzal in both primary and secondary outbreaks, so that the infection of influenza may have been the determining factor. Even if we include these we have record of less than 0·5 per cent. of the contacts developing the disease, and exclusion of them would indicate that hardly a greater proportion than one in every thousand is infected.

(2) DEATHS REGISTERED. These are classified in age groups in Table C. Obviously they differ from case deaths, *e.g.*, they include some from pneumonia not primary or post-influenzal and exclude any which died eventually from causes other than pneumonia or which occurred after the close of the year. The usual tabulation is given below for comparison :—

	MALES.	FEMALES.	TOTAL.
Pneumonia (or Lobar Pneumonia)	28	19	47
Influenzal Pneumonia	8	2	10
Broncho-pneumonia	10	12	22
Totals	46	33	79

Puerperal Fever

This also is so much concerned with maternity and child welfare that it is more aptly included in the Report of the Assistant Medical Officer. The fourteen notifications received included only seven amongst Northampton residents, two of whom died. The death-rate was 0·02.

Ophthalmia Neonatorum This affection is exclusively one of infancy and forms the subject of a section of the report on infant welfare (Appendix II.).

Venereal Diseases Ninety-seven persons belonging to the County Borough of Northampton commenced treatment for the first time as out-patients at the Special Clinic at the General Hospital. These are tabulated thus :—

	MALES.	FEMALES.	TOTAL.
Syphilis	29	13	42
Gonorrhœa	39	6	45
Other than Venereal	9	1	10
Totals	77	20	97

In the four years immediately preceding (1919–1922) the totals were 222, 189, 179, and 123 and in 1923 there was a continuance of this progressive decline, especially amongst females. Whether this is real or partly due to the fact that patients do not present themselves for treatment so readily as in former years cannot be accurately stated, but I have no doubt there is a genuine decrease of these diseases in both sexes.

From the records it would appear that only thirteen were discharged after undergoing the full course of treatment considered necessary to shew proof of cure, and although this is a marked improvement on former years of late, it is still a very low proportion. Only twelve who began treatment failed to persevere until they were shewn to be cured, which leaves the greater number still patients at the end of the year. Comparison with the Report for 1922, however, indicates that even this is a decided improvement. Ultimate cure is almost certain, but this can only be effected after a prolonged course of treatment during the greater part of which there is very little sign of illness and the patient is constantly tempted to assume that he is free of his disease. Consequently he requires a good deal of encouragement to persist to the end of the course. Those twelve referred to who left before they could be assured of cure are classified as follows :—

CONDITION.	MALES.	FEMALES.	TOTAL.
Syphilis	5	1	6
Gonorrhœa	5	1	6
Totals	10	2	12

The total attendances at the out-patient Clinic were 3,857 and during the year 390 days were spent in hospital by in-patients. In the treatment of syphilis, 966 doses of one or other of the recognised arsenobenzol compounds were given. The approved substitutes for salvarsan (arsenobenzol compounds) employed were novarsenobillon in doses ranging from 0·3 to 0·75 gm., stabilarsan 0·6 and 0·75 gm., and sulpharsenol C and D (0·015 and 0·02 ctg. for children) and 0·06 up to 0·48 ctg. The courses of treatment were varied with periods of rest in accordance with the recommendations of the Government experts and were combined in selected cases with older forms, which included mercury and potassium iodide. Progress was tested from time to time by means of the Wassermann blood reaction. The bacteriological work was carried out at the laboratory attached to the General Hospital and 472 specimens were examined there ; 317 of these were on behalf of the Special Clinic itself and 155 on behalf of private practitioners in the Town. The total cost of this was just over £137.

The peculiar circumstances connected with the prevention of venereal disease render it necessary to continue a judicious form of public education and propaganda. This work is being carried on all over the country as well as abroad, is encouraged and subsidised by the Government, and is included in every local scheme. In Northampton, as in many other districts, although financed from public funds, it is handed over to a voluntary association specially interested, the Local Branch of the National Council for Combating Venereal Diseases. The Executive Committee of this Branch includes, *ex-officio*, all the members of the Public Health Committee. Its year of activities does not correspond with the ordinary calendar year, but ends at the beginning of April, 1924. Miss Whitehurst, the late honorary secretary, resigned in the early part of 1923 and her place was taken by Miss Scott, and the following is an extract of Miss Scott's report approved at the annual meeting of the Branch in April, 1924 :—

> " The work of the year has been divided into two sections, an autumn and spring campaign.
>
> From 26th to 30th November, special lectures to mothers and older women were given by Mrs. Altentop from the National Council, the subject of these lectures being " Venereal Disease and Its Effects." Nine meetings were arranged as follows :—
>
> 1.—Spring Lane Mothers' Meeting ;
> 2.—Adnitt Road Women's Own ;
> 3.—Scarletwell Street Adult School ;
> 4.—The Mothers' Union ;
> 5.—Northamptonshire Nursing Association and the College of Nursing (Local Branch) ;
> 6.—Kettering Road P.M. Guild ;
> 7.—Lecture Hall at Public Library ;
> 8.—Factory of Messrs. J. Branch, Henry Street ;
> 9.—Y.W.C.A.
>
> These audiences totalled about seven hundred and literature was distributed at all meetings. Mrs. Altentop addressed the members of the Branch and offered suggestions for future work.

The spring campaign consisted of a course of lectures to teachers on " Sex Instruction," given by Miss Norah March, B.Sc. These lectures were arranged in conjunction with the Borough Education Committee, which made it possible for all teachers who wished to attend to do so during school hours. There were good attendances on each occasion and at the final lecture a number of questions were sent in to Miss March.

On Sunday evenings, 23rd and 30th March, 1924, three films entitled " The Shadow," " The Flaw," and " Memories " were exhibited at St. James' Cinema to mixed audiences. There were about fifteen hundred people present each evening and literature was also distributed.

On 9th November a conference was held in London when Mr. C. E. Tommis and Mrs. S. Twiselton attended to represent the Local Branch. An interesting report was given by Mr. Tommis at the last meeting of the Executive."

Human Anthrax

In April a case of anthrax was reported in a man of forty-nine years of age employed by one of the butchers in the Town. This man appeared to have a typical attack, the pustules occurring on the forehead. Although sent to the General Hospital he refused to have the pustules excised and was treated at home by his own medical adviser. The diagnosis was confirmed on bacteriological examination, but the man made a rapid recovery without serious constitutional symptoms and without spreading the disease further. Although it was stated that he had handled an infected carcase of beef a few days previously, the evidence of the veterinary surgeons who examined the carcase did not confirm the suspicion that it was so infected.

In November, in consequence of a report from the Laboratory that the B. Anthracis had been found in the case of two men admitted to the General Hospital, inquiries disclosed the fact that both worked at a tannery outside the Town, in which skins imported from China were handled. This was the starting point for an outbreak of five cases resident in the Borough and at least one outside. Although in some the illness was a very severe one, fortunately, so far as my information goes, all seem to have recovered. Steps were immediately taken, I am informed, to deal with the source of infection at the factory which was not in the Town and there has been no evidence of further spread.

Tuberculosis

It may be of interest to outline again the main features of the scheme of anti-tuberculosis measures set out in the report of 1920. Since then there is no important extension to record and indeed little has been altered since it first came into being on the passing of the first National Health Insurance Act. Before this for nearly ten years, without the reservation of a special staff and separate dispensary, the work was carried on by the Health

Department on exactly the same plan, though necessarily to a more limited extent. Various suggestions have been submitted from time to time for additional measures, but for one reason or another these have not been adopted.

The scheme consists of :—

(1) A Dispensary within easy distance of the Central Health Department which includes a small laboratory equipped for the necessary bacteriological work.

(2) A Hospital at Welford Road containing twenty-two beds and six shelters for the accommodation of (*a*) observation cases from the Dispensary, (*b*) those for isolation coming from households in which there are presumably susceptible contacts exposed to infection, and (*c*) others which, though classified for domiciliary treatment, are sent for a preliminary period of education in methods of self-care with the object of preventing the spread of infecting material from themselves to their immediate contacts.

(3) Twenty beds reserved in the Northamptonshire Sanatorium at Creaton for early cases in which the course of the disease is likely to be permanently arrested. This institution does not belong to, and is not administered by, the Town Council, but the Medical Officer of Health is a member of the Executive and House Committees of Management. Beds in other sanatoria are made use of in special cases if desirable and if they are available.

(4) About a dozen small movable wooden shelters for domiciliary use which are provided and set up where home isolation is difficult otherwise.

(5) Light work under some of the other Departments of the Corporation which is provided for certain of the patients in the public parks or elsewhere.

The Medical Officer of Health is the Chief Tuberculosis Officer, his duties being now mainly administrative unless in the temporary absence of the Clinical Officer. This latter officer is in charge of the Dispensary and Welford Road Hospital and though also Deputy and Senior Assistant Medical Officer of Health devotes most of his time to tuberculosis work. At the Dispensary the whole time services of a specially trained and experienced nurse and of one of the senior clerks of the Health Department are provided. The desirable co-ordination between this section and the others within the Health Department (Infant Welfare, School, Sanitary, etc. services) is obtained through the Medical Officer of Health who supervises all.

Every case is visited in the home by the nurse as soon as possible after notification; unless in special circumstances, and a record of the home conditions is obtained and filed. If the co-operation of any other section (*e.g.* Sanitary) of the Department, or of any other agency outside this, is desirable in the interests of public health or of that of the patient or his household, communication is at once established through headquarters. Periodic re-visits are made either as a routine or for special purposes. With the consent, and often on the initiative, of the medical practitioner in attendance, the patient is asked, where practicable, to attend at the Dispensary for consultation with the Clinical Tuberculosis Officer and the form of subsequent treatment is decided. Where necessary or desirable this officer also visits the home.

The details of the work during 1923 will be found recorded by Dr. Rowland, the Clinical Tuberculosis Officer, along with the appropriate tables in the first appendix to this report.

The evidences of progress as the result of our efforts do not seem to be so marked in regard to tuberculosis as in some other directions. The exigencies of present day life with its enhanced cost of living, widespread unemployment, abnormal housing conditions, and its struggle to recover the ground lost due to war and its consequences, appear to have masked those evidences more in case of the anti-tuberculosis efforts than that of most others. The hopeful outlook of pre-war days has faded temporarily at least, no doubt largely due to the changed financial circumstances.

There is encouragement however in noting, as can be seen from Table T.10 on page 52, that there has been a progressive fall in the death-rate from respiratory tuberculosis and in that from all forms of the disease combined, in spite of a slight rise in that of "other forms" in 1922. In the case of respiratory tuberculosis this progression in the fall has been spread over a sufficiently long period now to warrant the belief that it is not accidental and will continue. On the other hand it is not encouraging to find that in the last four years about forty per cent. of the deaths from respiratory tuberculosis occurred in cases which had either not been notified beforehand or had been notified less than six months, and of the deaths from other forms of the disease this proportion is doubled. Amongst the cases fully investigated (*see* Table T.4) during the year nearly half had been ill for more than a year at the time intimation of them came to hand. Nor does this latter proportion tend to improve as in 1923 it was higher than the average for the past nine years. In spite of our efforts hitherto we do not seem to obtain that early knowledge of the existence of the disease which is essential to effective treatment. If it will not come to us we must go out to seek for it and perhaps a more comprehensive search amongst contacts, presumably not tuberculous but more than usually exposed to the infection, will lead to the discovery of a greater proportion in the earlier stages. Tuberculosis is an insidious disease obtaining a firm hold often before the sufferer himself suspects it. A quotation from Dr. Rowland's first report for 1919 is given here in continuance of the above :—

> " The patient conceals his condition from himself, and in many cases from his medical adviser (who is often only consulted as a last extremity) in the hope that the worst fears will not be realised, for the general public has a horror of tuberculosis almost as great as that associated with leprosy in ancient times. I have no doubt this prejudice against persons notified as suffering from tuberculosis accounts to some extent for the late notification of the disease, for once a man or woman is known to be tuberculous they are shunned by their fellow workers and are no longer wanted in the factories by either employers or employees, the result being that the sufferer finds it almost impossible to obtain employment whereby to support not only himself but often his dependants also. It would be well for all if this feeling were modified to some extent, as at present it is only defeating its own ends. Whilst not for one moment denying the infectivity of pulmonary tuberculosis it must be realised that its infectivity is not usually of a very virulent order such as that of chickenpox or measles. With proper precautions on the part of the patient and those around him, the risk of infection is small."

In addition it must not be forgotten that there are cases which in the very early stages offer considerable difficulty in diagnosis even to the expert armed, as he should be, with the latest scientific aids. The proportion considered to be in a sufficiently early stage to warrant sanatorium treatment fell considerably in 1923 compared with each of the four years before that. That it could not have been due to the adoption of a higher standard in selection is quite obvious when immediate results are compared. Indeed it seems to have been quite the opposite as the proportion of those discharged reported as " arrested and improved " dropped from an average of 64·1 per cent. in the preceding four years to 56·8 per cent. in 1923. Dr. Rowland's remarks on these results are significant. Even the figures indicating the use made of Welford Road Hospital tell the same story.

There has been a fall in the proportion of cases in the earlier stages admitted for observation and education with a corresponding rise in the admission of later cases for isolation. The average proportion of the latter during the four years 1919–1922 was 89·3 per cent. whereas in the present year it was 94·0. It is also a fact of some significance commented on by Dr. Rowland that in spite of there being more notifications in 1923 than in 1922, the reduced list of patients attending the Dispensary and the fall in the sum of attendances manifest a growing reluctance to take advantage of the service. There is a difference of over ten per cent. in each category though the attendances made by each visitor (3·25) are only slightly exceeded by the average for the five years before (3·35). Dr. Rowland's reason for such a state of things may be a true one, but if the extra nourishment given is to be restricted I am distinctly in favour of the restriction being on the present principle in preference to any other I can think of.

It is a matter of vital importance in considering the subject of tuberculosis in Northampton to note the general effect of the disease on the staple industry of the Town. Unfortunately owing to the abnormal conditions brought about by the war during the last intercensal period, and to the fact that the complete information of the results of the last census is not yet available, some of the most important data, without which no proper estimate of its influence can be formed, are still lacking. The tables shewing occupational incidence and mortality submitted by Dr. Rowland are of limited value till we can correlate the information they contain with that which the Registrar General is expected to afford concerning the actual numbers and their age constitution, of those engaged in the trade and the various branches. It is, however, instructive to note certain facts in regard to tuberculosis in the industry during 1923, and as far as possible to compare recent conditions with those somewhat more remote from data supplied in this series of annual reports. Unfortunately military service made it difficult to maintain during the war period the standard of accuracy in the records at the same level as has been possible before and since and a few mistakes may have crept in which under the circumstances were unavoidable, but such I think are sufficiently trifling not to affect the results seriously. From these tables on occupational incidence and mortality it is calculated that during 1923 about 48·8 per cent. of the tuberculosis in those engaged in occupations other than housework was amongst boot and shoe operatives, and similarly 47·5 per cent. of the deaths. These figures and those corresponding during the war time, for each of the years since and for the whole post-war period are tabulated from data which include information in regard to both sexes, being extracted from the aforesaid occupation tables submitted with each annual report (*see* Table 23, page 78).

In Table T.9 in Dr. Rowland's report, the notified cases investigated and the deaths are enumerated, sub-divided for male operatives under headings indicating the main branch of the trade implicated. Tables containing similar information as far back as 1909 have appeared in former reports and from these sources combined Table 24 has been prepared. This is a statement of the proportionate incidence and mortality of tuberculosis of the respiratory system in the various branches of the industry. Although it may be taken as suggestive of the facts such evidence must be received *cum grano salis* as until the actual numbers engaged in and the age constitution of each group is authoritatively ascertained there can be no true comparison. I submit the statement, however, for what it is worth. The figure in each group purports to represent the proportion per cent. of male operatives stated to be clickers, lasters, etc. amongst (*a*) notified cases investigated and (*b*) deaths registered, during each of the quinquennia included between the years 1909 and 1923, as well as for the whole period. Note the indication of the preponderance of the disease amongst finishers which may be greatly modified when definite information is to hand of the size of the respective groups in general. The percentages in the former of the above tables are subject to the same criticism.

There is an important group amongst the notified cases which is apt to escape mention in a report of this nature—the children. There were twenty-seven such under fifteen years of age, thirteen of whom were notified as cases of respiratory tuberculosis and the remainder were classified as follows :—

Meningitis	7
Peritonitis	1
Glands	3
Surgical	3

The last named included a spinal, a knee joint, and a hand case. Fifteen were seen by the Medical Officer who sent four of the respiratory cases into Welford Road Hospital, where one died within a very few weeks. The diagnosis in one of the meningitis cases proved to be erroneous but the remaining six died after short illnesses as is almost invariably the case. The peritonitis case received treatment at the Margate Sea-Bathing Hospital and the spinal at the Alton Crippled Children's Home. One of the gland cases is in the Poor Law Institution and the two others along with two of the respiratory cases were treated at the General Hospital. The remaining seven respiratory cases and one surgical case (the knee joint) had domiciliary treatment. It is one of the weak points in our present scheme that no special arrangement is made for dealing separately with children especially those suffering from surgical and glandular affections. They should not be included along with adult respiratory cases at Creaton or Welford Road and it is greatly to be regretted that there is no local institution for the treatment of these forms of tuberculosis especially amongst children. Joint action in this matter should be taken if possible by the Public Health and Education Authorities.

The following facts obtained from the records of the work of the Tuberculosis Nurse may be of some interest. Of the 3,770 cases of all forms notified during the last twenty years, about a thousand are now kept in some degree under supervision in their homes. Each is visited by the nurse at least once a year and the condition noted. About two hundred and fifty seem to have had no evidence of active disease for years and the annual visit is made only in order that contact with them may not be lost and any suspicion of incipient disease amongst their home contacts may be noted. In an equal number the disease appears to be arrested, at least for the time being, though the permanence of this condition is not yet established. They are, however, quite fit for the most part for their daily work, but occasionally visit the Dispensary for advice. Only one annual domiciliary visit it made to them as a rule. Between three and four hundred are able to work all day or part of the day at light jobs of one kind or another, but occasionally break down. Most visit the Dispensary from time to time, but if they do not they receive two or more visits from the nurse each year. Of the remainder, one hundred to one hundred and fifty are in the late stages of the disease, unable to work, often confined to bed, and visited in their homes once in three months or even more frequently, especially as they cannot often come to the Dispensary. The date and result of each visit are recorded and weekly reports are made to the Medical Officer. During this same period of twenty years over 2,270 deaths were registered from pulmonary tuberculosis alone. This method of sytematic home visitation has proved a very useful means of keeping in close contact with the patients and their families and can be of great assistance in any organised search for contacts in the incipient stages of the disease and even in the pre-tuberculous period as already suggested.

Bacteriology

This, with the exception of the examination of sputum, urine, etc. for tubercle bacilli, for which the Tuberculosis Dispensary is responsible, is carried out at the laboratory of the General Hospital under the direction of the Pathologist, Dr. Eric H. Shaw. Through this agency the Public Health Department undertakes at the public expense the examination of suspected clinical material in connection with Northampton patients sent by the medical practitioners of the Town. Similar work for the Isolation Hospital and the Department generally is done here and for the Venereal Diseases Clinic. The bacteriological examination of the Town's water is undertaken regularly and when required that of milk and other food. Reports are furnished to the Medical Officer of Health of all examinations paid for out of public funds. References in more detail are made in the paragraphs relating to diphtheria, tuberculosis, anthrax, enterica, venereal diseases, and water supply, but the usual table on clinical bacteriology (No. 26) appears in the third appendix.

Meteorology

The usual table containing details of the meteorological conditions is included. The information which enables this to be prepared is kindly supplied by Mr. R. H. Primavesi. The year 1923, in spite of having more wet days, was drier than its immediate predecessor. There was not the heavy rainfall in the second quarter nor the deluge in August, but the very wet months of February and October were features. Although the mean temperature was similar to that of 1922, the summer was much warmer and the temperature in winter did not fall so low. There was nothing like the prolonged spell of north-east winds in the late summer and early autumn.

Disinfection

In Table 25 the number of articles dealt with at the Disinfecting Station is set out for each month of the year and in this way the periodic variations in the incidence of communicable disease is reflected with considerable accuracy.

Ambulance

I am at last able to report the purchase of a new motor ambulance carriage for the removal to hospital of cases of communicable disease. For over a quarter of a century there were in use, for the conveyance of such cases and for the transport of bedding, etc. to and from the Disinfecting Station, four horse-driven vehicles which, however serviceable at first, gradually became so worn out, in spite of complete renovation on several occasions, that they seemed eventually to be almost as much in the repair shop as on the road and reports on their condition, especially since 1918, were absurdly numerous. The suggested substitution of motor transport was definitely made in 1920, though I am inclined to believe it was hinted at before this, and various schemes were submitted since. It was, however, consistently referred though it approached settlement in the beginning of 1921 and again in 1922 with the help of Councillor W. Harvey Reeves, O.B.E. Mr. Reeves, on behalf of St. John's Ambulance Brigade, at last offered the Department the use of a light Ford ambulance on trial in January, 1923. The offer was gladly accepted and, after the preliminary training of the drivers, this vehicle was used with conspicuous advantage during the rest of the year. At length in the beginning of 1924 the order was given for a similar light Ford carriage furnished with the latest improvements at an approximate cost of only £200 and it actually came into use in February, after the alteration of the Ambulance Station to admit of safe keeping. The St. John Ambulance Brigade at the same time permitted the permanent retention, in addition, of the older vehicle previously lent.

Rat Destruction

The Chief Sanitary Inspector (Mr. W. J. Barker) holds the post of Rat Officer under the Rats and Mice (Destruction) Act, 1919. He has the services of a rat catcher who devotes the whole of his time to the work. Dogs and ferrets are used in many instances, as well as traps, gas, and a certain amount of poison. The number of tails accounted for is reported to the Public Health Committee each month, the total for last year being 3,337. This is exclusive of many rats which are undoubtedly destroyed in the runs by gas or poison, where the tails are unprocurable.

V.—MATERNITY AND CHILD WELFARE.

General

Maternity and child welfare work is delegated to a particular branch of the Public Health Department under an assistant who is directly responsible to the Medical Officer of Health and through him to a special committee of the Council. Mrs. E. H. Shaw, M.D., the Assistant Medical Officer, has prepared a full record of the year's work which is presented in a second appendix hereto. This includes information on all the essential points and in submitting it occasion is taken to direct special attention to certain of these.

Infant Mortality

The first relates to infant mortality in the paragraph on which Dr. Shaw asserts the seriousness of immaturity as a cause of death. In allotting to each condition its proportionate share in infant mortality, this seriousness becomes by contrast with that of others more marked year by year. Thirty-seven deaths were registered due directly to " premature birth," but considerably more are claimed for immaturity, if not in actual point of time at least in that of development. Dr. Shaw states that fifty-one infants died before reaching the age of one month. It has been pointed out time after time in these reports and elsewhere that most, if not all, of those who die under this age are really immature babies already unfitted at birth to stand the strain of living and hence born before they were prepared to live, or subjected to such shock or other injury while in process of birth that their chances of healthy survival are prematurely handicapped. The statistics of the last twenty years shew that, while the infant mortality in Northampton has fallen more than sixty per cent. as a whole, that part under one month of age has declined at less than half this rate and the death-rate from " premature birth " directly has not fallen so much as fifteen per cent.

External post-natal influences have had little time or opportunity to affect life extinguished so early, and specific effort therefore must be amplified in the interest of the health of the expectant mother and of the circumstances of the woman in childbed so as to attain a state of efficiency equal at least to that on behalf of the nursing mother and her growing infant. The need for this effort has been propounded in a number of able reports presented within the last year to the Ministry of Health by one of its senior medical officers on subjects such as the teaching of obstetrics and gynæcology in the medical schools, the training of midwives, and maternal mortality. Attention is also recommended to the series of reports on Child Life Investigations in process of publication by the Medical Research Council, which throws valuable light on the effect on the child of the mother's health and social conditions. Too many infants perish before, at, or immediately after birth because of injury to or ill health of the mother during pregnancy, or of mismanagement or unfavourable circumstances at confinement. In regard to the last mentioned one of the serious disadvantages encountered is the lack of sufficient and suitable facilities for safe and easy confinement in most of the homes of what is termed the working classes. Especially is this so with the present shortage of houses. Institutional accommodation, therefore, is greatly needed and the partial supply of this through the agency of the Maternity Home of the Queen Victoria Nursing Institution is much appreciated. This home in Colwyn Road is well equipped and satisfactorily managed by a trained and experienced nurse-midwife. The Maternity Committee gives financial assistance to patients who cannot afford to pay the fees, on the advice of the Medical Officer of Health prompted after investigation of the circumstances by Dr. Shaw. The provision of further institutional accommodation however, is needed not only for cases in poor circumstances with inadequate home facilities in a maternity home, but for difficult abnormal cases requiring operative treatment in a maternity hospital, if real endeavour is to be made to lessen the fatality due to childbirth.

Pre-natal Work

Although the value of the pre-natal clinic is gradually becoming recognised, the attendance at such as has hitherto been provided increases very slowly and many women who would be greatly benefited refrain from coming. Every effort is made to interest the midwives, who in this Town attend more than half the confinements, and to induce them to bring or send their patients during pregnancy for consultation with the medical officer, but with rather indifferent success so far. It is specially important that whenever possible the midwife should accompany her patient at least once in preference to sending her alone. In this way hints on the expectant mother's condition and its management at the impending confinement can be conveyed directly, and therefore more easily and thoroughly, to the responsible adviser. The advice given should be the means of removing much preventable ill health and discomfort during pregnancy and difficulty or danger at the coming confinement can often be anticipated and provided for after medical examination. Thus the casualty list from childbirth and immaturity should be reduced. The fact that the clinic is on temporarily hired premises, which at other times are used for many other purposes, does not permit of proper arrangement for the necessary privacy, nor can the full equipment be available in the same way as would be possible on specially provided and arranged premises of our own. This, of course, detracts seriously from the popularity of the pre-natal work. These disadvantages, however, will be removed in future when the new central building, acquired by the Committee in the early part of 1924, on Corporation property is opened. This is further referred to below. The clinic held at the Queen Victoria Nursing Institution, where the accommodation, equipment, and other arrangements, including the midwife's attendance, were very much better, lost much of its value owing to the great irregularity, the cause of serious inconvenience but beyond the control of the Department, which characterised its meetings during most of the year. Much better progress with pre-natal work is looked for in the future and it is hoped soon to shew from the resulting diminution in the mortality from immaturity that it is having effect at least equal to that displayed in other directions from post-natal work.

Notification of Births

The number of stillbirths, of which information reached the Department, I fear does not represent the real total. These as well as live births are compulsorily notifiable, but as the former are not registrable also, there is no means of gauging, as in the latter, the extent to which notification is evaded. Without accurate knowledge preventive effort is handicapped. Even in the case of live births there is still evasion of this duty on the part of some of those responsible, and the Committee feels that sooner or later some drastic action will be needed to bring home to them their responsibilities. The Ministry of Health itself has called attention to the fact. In the meantime, by public advertisement and the dispatch of circular letters, it is sought to deprive defaulters of the excuse of ignorance and inquiries as to the reason for failure are made each time from those responsible. No doubt these steps are only preliminary to further action.

Dentistry

Like Dr. Shaw I desire to stress the function of the dentist in infant welfare as I am sure it is not properly appreciated. I believe if it is sufficiently turned to account it will be one of the most efficient aids in reducing mortality and morbidity due to pre-natal influences. A foul, unhealthy mouth from dental disease and decay means constant ill health, which in the expectant mother seriously affects the maturity and subsequent well-being of the infant. While not underestimating the value of dental care even in the youngest after birth, I consider that it is better preventive work to attain the desired effect through the expectant and nursing mother.

Contribution to the cost is required from the patient, though this is reduced to the smallest limit practicable and rendered as little burdensome as possible by a system of payment by instalments. Unfortunately amongst many who most need the treatment this constitutes a barrier difficult to surmount and the full benefit of this measure is thus retarded. The present arrangement for the services of the School Dentist is by far the most economical that can be decently made and has been as efficient as any other in the circumstances.

Assisted Milk Supply

Dr. Shaw has described so fully the procedure and the work accomplished in connection with the assisted milk supply that it only remains to state that the cost of the milk during the year was approximately £500. Over and above the effort to safeguard its purity, the educative effect on the public was considered in requiring the milk to conform to the standard of cleanliness demanded of " Grade A " milk in the Special Designations Order of the Milk and Dairies (Amendment) Act, 1922, and the firm entrusted with the contract at present is the only one in the Town with a licence to sell this.

Infant Welfare Centres

That there was no slackening of effort at the eight infant welfare centres is quite evident from a study of Table M. & C.W. 8 in the report of the Assistant Medical Officer. This work from its very nature must be decentralised. The meetings should be held in the neighbourhood of the homes of the mothers as long absence from home and long journeys to a centre, no matter how suitably adapted and furnished for its special purpose, in the variable weather characteristic of our climate, must positively be discouraged especially where an infant, not always strong and healthy, is concerned. A number of centres therefore is required each in a separate part of the Town meeting once a week, instead of one or even two open each day for a separate meeting. The premises thus are not always as suitable as they might be. This is inevitable as they are used for the most part by others for quite different purposes in the interval between two meetings of the centre. All are not equally convenient in construction and arrangement and no special equipment can be permanently set up. These are admitted drawbacks to some extent and tend to retard progress in interesting development and to damp the enthusiasm of some. But it is obvious things cannot well be otherwise as it has never been suggested that each of this number of centres should be constructed and maintained for this work alone, even if such were possible. It has long been felt, however, that if at least one central building were acquired and used solely for the purpose of maternity and child welfare, arranged and fitted with more complete and permanent equipment it would be some compensation. After considerable trouble an old mission hall in Dychurch Lane belonging to the Corporaton was secured early in 1924, which after adaptation will no doubt answer the purpose. It is centrally situated conveniently near departmental headquarters. It can be fitly used on separate afternoons as a welfare centre taking the place of two at present serving districts in the middle of the Town to which it is sufficiently near. Part of it will be placed at the service of the association of voluntary workers to be used for large meetings for special purposes, *e.g.* lectures, special classes, entertainments, etc. for mothers from any or all of the other centres. There will also be accommodation for a suitably arranged and effectively equipped pre-natal clinic, to which it should be easier to attract the expectant mother and her prospective midwife attendant than it is now with premises in King Street certainly not adapted for the purpose, and to this extent help to make pre-natal work more popular. Lastly there is room to allow of partitioning off and fitting up of sufficient and suitable office quarters for the present staff which will thus be associated at last under one roof. The approval of the Council and the Ministry of Health has been obtained and the work of adaptation is now (May, 1924) in progress.

Voluntary Assistance

Before quitting the subject of the centres I should like to express my appreciation and that of my staff of the continued help received from the Northampton Association for Maternity and Infant Welfare which has so long and so loyally supported the Department in this part of its work. The voluntary workers of this association have taken over entirely the social and in part the educative sides of the work at the centres ; providing lectures and classes on approved lines ; teaching mothercraft, housewifery, cooking, the making of clothes, and many additional useful subjects ; arranging the teas, picnics, and other entertainments which help to maintain the interest which enables the officials to carry on the more professional part of the work of the Department with success ; organising the demonstrations and competitions associated with the annual Baby Week in its efforts to educate the public as well as the parents to appreciate the value of the work to the community, and providing the funds through voluntary subscription for carrying the effort well beyond the bounds of the official scheme. I especially recognise the fact that all this was done in complete harmony with the Department, and nothing so far without its sanction and cordial approval, due in large measure to the discretion and tact of the Association's president.

Home Visitation

I must not omit to mention finally the excellent work in the homes. It is accomplished of necessity quietly and without ostentation without the opportunity of appealing to the public imagination. These are visited by specially trained and experienced nurses under the Assistant Medical Officer, wherever possible before a birth and always (with a few exceptions) soon afterwards. The visits are repeated at intervals whenever help or supervision is required during the first year of the life of the child and in many cases till it attains school age. Every household is visited at once on the occurrence of an infant death. Cases of ophthalmia and of puerperal fever are inquired into ; households are visited in which measles, whooping cough, and other non-notifiable infectious diseases are suspected and from which children attend school, and notified cases of pneumonia and chickenpox occurring in women and young children. In this way also investigation is made in connection with applications for the assisted milk supply and the free dinners, for dental assistance and for other purposes impossible to further indicate here. In 1923 the total number of these home visits was 11,961. Although each part of the scheme of maternity and child welfare has its own place in it and it is not wise to assess for comparison a value to each, this home visitation in the real circumstances in which the lessons taught have to be practised is the true base on which the other parts are raised. It is entirely carried out by the staff without any outside assistance whatever. The staff of health visitors only numbers four, but the school work and that connected with the tuberculosis section is not included in their duties. Compared with many other towns of similar size the number is small for the work required and it has only gradually reached this size. During 1923, one of the health visitors (Nurse Young) resigned and she was succeeded by Nurse Bingle who came from similar work. A greatly needed addition, a clerk (Miss York), was made in April which was the means of relieving the Medical Officer and the nurses of much routine clerical detail which took time now turned to better use.

The Late Chairman

I cannot close this part of the report without referring briefly to the very serious loss this section of the Department suffered by the death of the Chairman of Committee, Mrs. Rose Scott. It occurred rather suddenly in September after a painful illness. No official worked with greater zeal and success and none secured a larger measure of confidence and true respect. Those who served with her were sure of encouragement and ready sympathy at all times and more often than not her assistance took the practical form of personal effort. I consider she did more real good in the Town amongst those who needed it than any other single individual man or woman, and I know that her successor in the chair is the most ready to own the difficulty of filling her place. Her ardour for effort for what she believed to be the good of the working people of this Town hastened her death and she literally died in harness.

VI.—HOUSING.

Housing Scheme

The work of municipal housing, concerning which I have given certain facts in the reports of 1921 and 1922, was continued. Undoubtedly, however, in spite of considerable activity on the part of the Housing Committee, the provision of new dwellings still lags behind the needs of the Town. The Borough Engineer has supplied me with the following particulars of progress under the scheme :—

Number of houses completed between 1st January and 31st December, 1923, under the Corporation schemes	212
Number of these built within the Borough boundary	212
Total number of houses erected both within and without the Borough up to 31st December, 1923 ...	756

Other New Buildings

In addition to the above, the following is a summary of the erections of new, or extensions of old, buildings during the year, plans for which were approved by the Highways Committee :—

New dwellinghouses	56
New villas	8
New houses and shops	16
New factories	3

New garages	21
New workshops	3
New working men's club	1
New sports pavilion	1
New billiard halls	2
New stables	1
New water closets and lavatories	14
Additions to dwellinghouses	7
Additions to premises	27
Temporary buildings	9

If this is compared with analogous statements in former reports, it will be found that the rate of progress in this direction tends slightly to increase, but that the part played by private enterprise is comparatively small in the endeavour to meet the shortage of working class dwellings.

It must be obvious from consideration of the above facts that no matter how unsatisfactory the present housing conditions in the Town may be, it is impossible to continue the representation for closure of houses that need such procedure as there are no means of housing the inhabitants displaced and this had to be taken into account in determining the action of the Department.

Housing Survey

Reference has several times been made to the survey of the Town, which has been in progress since 1920. The survey was completed during the year now under consideration and in the course of the work, 6,540 houses were inspected and reported on. These were mainly in the areas where it was known the worst housing conditions existed. Of this total, 812 (or 12·4 per cent.) were found to be unfit for habitation. This is roughly four per cent. of the houses in the Town. A further list of 478 (7·3 per cent. of the houses inspected) although at the time unfit for habitation, might be made fit if structurally altered and repaired. This represents between two and three per cent. of the inhabited houses in the Town. 1,130 out of the number inspected were judged to be at present more or less satisfactory and the remainder, although falling below what might be called a reasonable standard, are capable of being raised to this standard by alterations and repairs. It must be noted in considering the foregoing that the survey was begun towards the end of 1920 and the conditions existing at the time the review was completed may have somewhat altered, either for better or for worse, and consequently the figures may require modification.

Housing, Town Planning, &c. Act, 1909

Tables consistently presented under this heading in these reports since the passing of the Housing, Town Planning, &c. Act, 1909, are continued in the Appendix betokening the condition at the end of the year of those properties represented by the

Medical Officer of Health as unfit for human habitation under the terms of Section 17 of this Act, which had previously not been finally accounted for satisfactorily. The extreme difficulty of getting closing orders made effective, in view of the house shortage, has held the hands of the officials in representing and of the Committee and Council in making them, and even where such orders were made it has been impossible to refrain in some instances from postponing their operation. Property, therefore, which in ordinary circumstances would have been unhesitatingly represented as unfit for habitation, was subjected to attempts at improvement through the agency of the Public Health Acts. The remarks in the table which may be construed as unsatisfactory from the point of view of progress are explained in this way to some extent. Another of the tables (No. 29) denotes the list of properties which it was impossible not to represent under this Section during 1923, with the condition at the close of the year.

Appeal against Closing Orders

In Table 28 it will be noted that closing orders were made by the Council on 1st January in reference to Nos. 7 & 8 and Nos. 33, 34, 35, 36, 37, 38, & 39, The Riding. On 19th January the owner of these houses lodged an appeal with the Ministry of Health against such closure and in accordance with the terms of the Act, an inquiry was held locally in March, by an official of the Ministry. The result was that the action of the Town Council and its officials was upheld and the appeal dismissed with costs. On receipt of an intimation to this effect from the Ministry of Health, the Council decided that having regard to the difficulties of re-housing the tenants at the present time, further proceedings to enforce the closing orders should be deferred, it being understood that as soon as any of the houses became vacant the owner should not permit them to be re-occupied. Up to the end of the year no such vacancy had occurred.

Housing, Town Planning, &c. Act, 1919

Under Section 28 of the 1919 Act, eight houses were dealt with. These are mentioned below and brief notes are appended on the progress made at the end of the year with the work deemed necessary ;—

BATH ROW, NOS. 2 & 4. The period allowed by the notice expired in December and although the work was not done, further action was under consideration.

GAS STREET, NO. 32. The term allowed here was not up till 1924, nor was the work completed.

HIGH STREET, NOS. 48, 50, & 52. Notice expired in September and the period was extended by the Committee. Condition was *in statu quo* at the close of the year.

LOWER CROSS STREET, NOS. 13 & 15. The work was partially done by 1st January, 1924, but the notice had still a couple of months to run.

By May, 1924, all the necessary work had been done, except to the property in High Street.

Public Health Acts

Recently most of the house-to-house inspection has been included in the housing survey already referred to, but there were 258 dwellings outside this which came under the heading of routine house-to-house inspection. Any nuisances or other infringements of the Acts found during the course of this work were dealt with in the usual way.

Twenty-nine houses, or parts of houses, were reported by the Medical Officer of Health under the terms of Section 46 of the Public Health Act, 1875, as being in such a filthy or unwholesome condition that the health of the occupants was affected or endangered thereby, and that the cleansing and whitewashing were urgently required, or that the whitewashing or cleansing would tend to prevent the spread of infectious disease. In each of these the work specified on the notice was eventually carried out. Two prosecutions were found necessary, however, but these were not instituted until 1924. In each case the offender was fined twenty shillings and was told that he was liable to further penalties if the work was not carried out. Eventually the requirements were satisfied.

Prosecutions

Apart from legal proceedings under the Food and Drugs Acts, three prosecutions were undertaken during the year to enforce compliance with notices served under Sections 41 and 94 of the Public Health Act, 1875. Details may be obtained in Table 30.

Factories and Workshops

Table F. summarises, in the prescribed form, the work done by the inspectors under the Factory and Workshop Act, 1901.

See Appendix III. (page 65) for the usual statistical tables.

APPENDIX I.

REPORT OF THE CLINICAL TUBERCULOSIS OFFICER FOR THE YEAR 1923.

Tuberculosis Dispensary,
May, 1924.

To the Medical Officer of Health and Chief Tuberculosis Officer.

Sir,

I beg herewith to submit to you my report on the working of the anti-tuberculosis scheme in the County Borough of Northampton for the year 1923, for inclusion in your annual report. The report is on similar lines to those of recent years.

STEPHEN ROWLAND.

General Remarks

The number of cases of tuberculosis notified to the Medical Officer of Health during the year shews a slight increase over those of 1922; but when one takes into account those which were obviously not tuberculosis, it is doubtful if the actual cases shewed much excess over those of the previous year when the number touched a low record for recent years. The slight increase in notifications has been chiefly in the pulmonary group, the non-pulmonary cases being almost the same as in 1922, viz.: twenty-eight as against twenty-six.

The large increase in the phthisis deaths which should have followed the marked jump in notifications during the later years of the war (which was mentioned in last year's report), is still delayed, tending to confirm the impression that many of these were errors in diagnosis. The number of deaths registered as being due to phthisis fell to the low figure of eighty-four, giving a phthisis death-rate of 0·90 per thousand of the population, the lowest on record for the Borough, being less than half the rate which prevailed in Northampton forty years ago. As the decline in the death-rate has been gradual and extending over many years, there is more ground for hope that it may continue than would be the case if the rate were subject to large fluctuations such as might be experienced in other infectious diseases more under the influence of epidemic waves. The death-rate from non-pulmonary forms of tuberculosis was also lower than in 1922. There continues to be cases where death occurs before notification is received, but it is hoped these will be gradually eliminated.

The attendance of patients at the Dispensary shews a slight falling off compared with the previous year. I am afraid this is to be expected so long as the giving of extra nourishment is restricted to cases which are often in the least need of it. In other words, persons who are far down the hill and in whom no permanent improvement can be hoped for are not eligible for extra nourishment. The question of extra nourishment is a vexed one and at present in an unsatisfactory condition.

The Clinical Tuberculosis Officer made two hundred and forty-three visits to the homes of patients with the consent of, or at request of, the general practitioners or the Ministry of Pensions.

Table T.12 giving the immediate results of sanatorium treatment does not make cheerful reading, shewing that less than thirty per cent. of cases sent returned with the disease arrested and forty-three per cent. were discharged with the disease not improved. When the disease is established so as to be beyond doubt, with tubercle bacilli in the sputum, sanatorium treatment seldom brings about arrest.

In my opinion not sufficient use is made of Welford Road Hospital. One constantly visits patients in their crowded homes who would be more comfortable in hospital, to say nothing of the risk of infecting other members of the households.

In the early part of last year considerable interest was aroused by the introduction of a new vaccine which it was hoped might prove to be a cure for tuberculosis. This defatted vaccine has been subjected to extensive trials in Great Britain, but the claims made for it have not been substantiated. None of the Borough cases on whom this treatment was tried shewed any improvement.

Conjugal Infection. Special Investigation

During the year an investigation was carried out with a view to ascertaining the prevalence of conjugal tuberculosis in Northampton. The general opinion has been that the condition is rare, *i.e.*, a tuberculous spouse rarely infects his or her partner, but from time to time work is published throwing doubt on this belief. Hitherto, most of the investigations have been carried out through the examination of contacts and relate to infection rather than death of the partner. I do not think this is the most satisfactory method of attacking the problem, as it leaves too much to the personal equation of the observer. What one clinician would accept as a case of early infection might be rejected by another as not shewing sufficient symptoms or physical signs to warrant a diagnosis of tuberculosis. To get over this difficulty I have investigated the after-history of the surviving partners of tuberculous married persons, where one partner has been certified as having died from phthisis. With this objective I have reviewed all the deaths certified as due to phthisis in Northampton during the ten-yearly period 1911–1920, totalling 1,242. From this investigation I have come to the conclusion that conjugal infection is rare, though all the conditions which should produce it exist, and in many cases exist to such a marked degree one would think it could only be a matter of time before one partner would infect the other. The infective agent, the tubercle bacillus, is present and the partners are in close proximity to each other for a large part of the day and often occupy the same bed during the night. Conditions which might be supposed to lower the natural resistance to disease and break down what immunity there is are frequently present, viz.—anxiety, want of rest (this is always present where the wife has to nurse her sick husband), and often want of food, yet it is rare to find the spouse of a tuberculous patient dying from phthisis. The explanation I would offer for this failure of infection is that by the time marriage age is reached men and women have passed the most susceptible age period, which appears to be to me during childhood. Whilst holding the opinion that infection usually takes place during childhood and adult infection is rare, it must be admitted it is somewhat unusual to find children dying from phthisis. The explanation appears to be that though infection occurs during early life, the bacillus generally lies dormant for a considerable period until it is either killed off or awakened into activity later in life by some condition which lowers the natural immunity, and allows the infective agent to get the upper hand so to speak. It is well known, and has been observed for centuries, that the incidence of phthisis is greatest during the most active period of life.

The subject of infection appears to be intimately connected with the one of diathesis or predisposition to infection, in other words, the suitability of the soil for the seed. That there is such a thing as a tubercular diathesis or inherited predisposition to phthisis is apparent from the number of cases met with in these investigations where several members of the same family have died from the disease, as father and sons or daughters, or mother and sons and daughters, but rarely husband and wife. Whilst not for a moment wishing to minimise the risk of one partner infecting the other, or to advocate the cessation of ordinary precautions, I think the greatest risk falls on the children of phthisical parents and it is they who require the most protection. It is on these lines the Grancher system was founded and is being carried out in France.

Whilst these views do not agree with work published recently in England, based on evidence of infection, not death, they agree with the views of Fishberg in America and De Besche and Jorgensen in Norway and with those of the late Mr. Pope of the Adirondack Sanatorium, New York, who, when investigating the subject of conjugal infection, with the aid of modern statistical methods, found that assortive mating probably accounted for at least two-thirds and infective action for not more than one-third of the whole correlation observed in these cases.

It may be of interest to note a few of the instances where several members of a family in Northampton died from phthisis during the ten-yearly period 1911–1920 :—

Brothers in 33 instances—3 families each lost 3 brothers.
Sisters in 22 instances—4 families each lost 3 sisters.
Father and son in 13 instances.
Father and daughter in 14 instances.
Mother and son in 7 instances.
Mother and daughter in 8 instances.
Brother and sister in 30 instances.

During this period only fifteen instances were found where both husband and wife died from phthisis, and one of these couples had to be rejected owing to tuberculosis in the inner family circle making the case too doubtful to include amongst those of conjugal infection.

Notification

During 1923 there were 137 notifications of separate cases of pulmonary tuberculosis not previously notified. This number includes two cases of tuberculous laryngitis. There were also notified twenty-eight cases of tuberculosis classified as other than pulmonary. The total number of cases of tuberculosis, therefore, notified for the first time was 165. This is exclusive of seven notified in the Town but belonging to other districts—known as " outward transferable cases."

Besides the number classified in Table T.1, there were registered twenty deaths in which no previous notification had been received. Eight of these were " outward transferable deaths " and are not reckoned as Northampton cases. The classification of the remaining twelve will be found in Table T.2.

Deaths Registered

The deaths from pulmonary tuberculosis during 1923 numbered eighty-four, giving a death-rate of 0·90 per thousand of the population. This is the lowest recorded in the Borough.

The death-rate from non-pulmonary tuberculosis dropped slightly to 0·17. There were sixteen in this group.

The usual statistical tables will be found grouped together at the end of my report.

Anti-tuberculosis Measures

The following is a short resumé of the work accomplished by, and in connection with, the Tuberculosis Section, grouped under the headings shewn below in the margin.

Tuberculosis Dispensary

ATTENDANCES

Total number of attendances of patients		1,536
Number of patients attending :—		
Males	299	
Females	174	
Total ...		473

The above numbers include twenty-nine " contacts " and forty-seven persons for diagnosis at the request of general practitioners. Six " diagnosis " cases were subsequently notified.

The average number of attendances per patient was 3·25.

In addition to the above the Tuberculosis Medical Officer made 243 visits to the homes of 149 patients (73 male and 76 female).

The following is the number of visits made by the nurse from the Dispensary during the period :—

Number of investigations after notification in the case of :—

Pulmonary tuberculosis	139	
Other forms of tuberculosis	18	
Deaths from tuberculosis	6	
		163
Re-visits		1,410
Total		1,573

Table T.11 summarises the work done at the bacteriological laboratory attached to the Dispensary.

Welford Road Tuberculosis Hospital

The following is the number of cases dealt with at this Hospital during 1923 :—

	MALES.	FEMALES.	TOTAL.
Number remaining at end of 1922	10	7	17
Number admitted during 1923	36	31	67
Number discharged during 1923	36	24	60
Number died during 1923	4	5	9
Number remaining at end of 1923	6	9	15

Of the sixty-seven cases admitted, forty-six were insured persons. Sixty-three were admitted for isolation and four for observation.

Sanatoria

The following is a summary of the Northampton cases dealt with in Sanatoria during 1923 :—

	MALES.	FEMALES.	TOTAL.
Number remaining at end of 1922	10	6	16
Number admitted during 1923	21	12	33
Number discharged during 1923	21	16	37
Number remaining at end of 1923	10	2	12

Of the thirty-three admitted, twenty-nine were insured persons.

In the treatment of the above the following sanatoria were made use of :—

Northamptonshire Sanatorium, Creaton.
Heatherwood Hospital, Ascot.

In addition, seven went privately to the Royal National Hospital, Ventnor ; three to the Royal National Sanatorium, Bournemouth ; one to the Fairlight Sanatorium, Hastings ; one to the Royal Sea-Bathing Hospital, Margate ; and one to the Lord Mayor Treloar's Cripples' Hospital, Alton, Hants.

During the year the Ministry of Pensions sent three pensioners away on courses of vocational training under a scheme inaugurated in June, 1922.

On discharge a report is sent from the sanatorium authorities in respect of each patient, giving certain information of the condition at the time of leaving. From a summary of these reports Table T.12 is compiled.

TABLE T1. NORTHAMPTON, 1923.

TUBERCULOSIS. CLASSIFICATION OF NOTIFIED CASES.

	MALES.	FEMALES.	TOTAL.
Pulmonary :—			
Lung and Pleura	72	63	135
Larynx	—	2	2
	72	65	137
Meninges and Brain	3	5	8
Peritoneum and Intestines	1	2	3
Spinal Column	1	2	3
Joints	5	2	7
Cervical Glands	1	2	3
Other Organs	2	2	4
Totals	85	80	165

TABLE T2. NORTHAMPTON, 1923.

TUBERCULOSIS. CLASSIFICATION OF DEATHS REGISTERED OF CASES NOT PREVIOUSLY NOTIFIED.

	MALES.	FEMALES.	TOTAL.
Lung	4	3	7
Meninges	—	1	1
Peritoneum and Intestines	2	—	2
Other Organs	1	1	2
Totals	7	5	12

TABLE T3. NORTHAMPTON, 1923.
PULMONARY TUBERCULOSIS. NOTIFICATIONS AND DEATHS OF CASES NOT NOTIFIED.

	MALES.	FEMALES.	TOTAL.
Number of Cases Notified	72	65	137
Number of Deaths of Cases not Notified ...	4	3	7*
Totals	76	68	144

*After deducting the "outward transferable deaths."

TABLE T4. NORTHAMPTON, 1923.
PULMONARY TUBERCULOSIS INVESTIGATIONS. DURATION OF ILLNESS.

PERIOD.	Cases Notified.	Deaths Registered of Cases not previously notified.	Total.
Under 6 months	31	2	33
Over 6 months and under 1 year ...	33	1	34
Over 1 year and under 2 years ...	25	1	26
Over 2 years and under 3 years ...	15	—	15
Over 3 years and under 4 years ...	10	—	10
Over 4 years and under 5 years ...	5	—	5
Over 5 years	3	—	3
Unascertained	8	3	11
Not Tuberculosis	7	—	7
Totals	137	7	144

TABLE T5. NORTHAMPTON, 1923.
PULMONARY TUBERCULOSIS INVESTIGATIONS. SEX AND STATE.

	MALES.	FEMALES.	TOTAL.
Single	32	28	60
Married	30	34	64
Widowed	4	3	7
Unascertained	5	1	6
Not Tuberculosis	5	2	7
Totals	76	68	144

TABLE T6. NORTHAMPTON, 1923.
PULMONARY TUBERCULOSIS INVESTIGATIONS. DEGREE OF HOME ISOLATION FOUND.

	MALES.	FEMALES.	TOTAL.
No. having separate Bedrooms ...	31	18	49
No. having separate Beds (only) ...	1	8	9
No. having no Isolation	29	30	59
No. in Institutions	10	6	16
Unascertained	—	4	4
Not Tuberculosis	5	2	7
Totals	76	68	144

TABLE T7. NORTHAMPTON, 1923.
TUBERCULOSIS DEATHS. PERIOD ELAPSING BETWEEN NOTIFICATION AND DEATH.

PERIOD BETWEEN NOTIFICATION AND DEATH.	MALES.	FEMALES.	TOTAL.
(1) PULMONARY TUBERCULOSIS :—			
Not notified	4	3	7
Notified after death	—	—	—
One month	4	4	8
1—6 months	10	7	17
6—12 months	4	6	10
12—18 months	4	9	13
18—24 months	3	3	6
24—36 months	3	1	4
3 years and over	11	8	19
Totals	43	41	84
(2) TUBERCULOSIS OTHER THAN PULMONARY :—			
Not notified	3	2	5
Notified after death	—	2	2
One month	2	4	6
1—6 months	—	1	1
6—12 months	1	1	2
12—18 months	—	—	—
18—24 months	—	—	—
24—36 months	—	—	—
3 years and over	—	—	—
Totals	6	10	16

TABLE T8. NORTHAMPTON, 1923.

PULMONARY TUBERCULOSIS. OCCUPATIONAL INCIDENCE AND MORTALITY.

OCCUPATION	Cases Notified	Deaths Registered	OCCUPATION	Cases Notified	Deaths Registered
Shoe Operatives :—			Housewife	32	20
(*a*) Clicker	10	6	Ironer	—	1
(*b*) Laster	5	3	Labourer	2	5
(*c*) Finisher	12	7	Leather Dresser	—	4
(*d*) Roughstuff and			Licensed Victualler	1	—
Pressman	2	1	Mental Attendant ...	1	—
(*e*) Warehouse and			Miner	—	1
General	4	4	Musician	1	—
(*f*) Female Worker	8	8	Nurse	—	1
			Painter	2	—
	41	29	Pinafore Maker	1	—
			Porter	1	—
Blouse Maker	—	1	Printer	2	1
Butcher	1	1	Schoolchild	12	2
Carpenter	1	—	Shop Assistant	5	—
Charwoman	2	—	Shop-keeper	1	3
Clerk	3	2	Stoker	—	2
Dental Mechanic	1	—	Tailor	1	—
Domestic Servant	3	—	Tile Worker	1	—
Dressmaker	—	2	Waitress	1	—
Electric Light Worker	2	1	Warehouse (Iron) ...	—	1
Engineer	4	2	No Occupation	6	1
Ex-sailor	1	—	Unascertained	2	—
Ex-soldier	3	3	Not Tuberculosis ...	7	—
Farmer	1	—			
Hairdresser	1	1	Totals	144*	84
Hospital Sister	1	—			

* Includes seven where investigation was made into deaths not previously notified.

Table T9. Northampton, 1919–1923.

Pulmonary Tuberculosis. Incidence and Mortality amongst Boot and Shoe Operatives.

Year.	NO. OF CASES.			CLASSIFICATION OF MALES.*				
	Total.	Males.	Females	*a.*	*b.*	*c.*	*d.*	*e.*
Notifications—								
1919...	63	42	21	2	9	10	3	18
1920...	81	56	25	7	19	20	2	8
1921...	53	32	21	6	11	6	4	5
1922...	41	26	15	5	12	4	1	4
1923...	41	33	8	10	5	12	2	4
Deaths—								
1919...	40	28	12	3	7	12	2	4
1920...	34	24	10	4	7	6	1	6
1921...	32	24	8	4	8	9	—	3
1922...	40	33	7	6	12	6	5	4
1923...	29	21	8	6	3	7	1	4

*(*a*) Clicker ; (*b*) Laster ; (*c*) Finisher ; (*d*) Pressman and Rough-stuff Worker ; and (*e*) General and Warehouseman.

Table T10. Northampton, 1876–1923.

Death-rates from Pulmonary and Other Forms of Tuberculosis in 1921–1923 and in each of the Nine Preceding Quinquennia

Quinquennial Periods.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.
1876—1880	1.93	0.51
1881—1885	1.81	0.20
1886—1890	1.60	0.39
1891—1895	1.56	0.30
1896—1900	1.45	0.30
1901—1905	1.25	0.37
1906—1910	1.19	0.31
1911—1915	1.27	0.29
1916—1920	1.55	0.29
1921	1.06	0.17
1922	0.94	0.21
1923	0.90	0.17

TABLE T11. NORTHAMPTON, 1923.

TUBERCULOSIS DISPENSARY. BACTERIOLOGY.

SPUTUM, URINE, ETC., EXAMINED.			
NUMBER OF SUSPECTED CASES.	REPORTS MADE.		
	POSITIVE.	NEGATIVE.	TOTAL.
387	176	334	510

TABLE T12. NORTHAMPTON, 1923.

PULMONARY TUBERCULOSIS. IMMEDIATE RESULTS OF TREATMENT AMONGST CASES WHICH LEFT SANATORIA DURING THE YEAR.

	NUMBER.	PER CENT.	
Disease reported to be :—			
Arrested	11	29·8	56·8 %
Improved	10	27·0	
Not Improved	16	43·2	
Totals	37	100·0	

See also remarks of Medical Officer of Health on page 26 et seq.

APPENDIX II.

REPORT OF THE ASSISTANT MEDICAL OFFICER FOR MATERNITY AND CHILD WELFARE, FOR THE YEAR 1923.

To the Medical Officer of Health.

SIR,

My report for the year 1923 on the maternity and child welfare work in the Borough is now completed and is presented to you for incorporation in your Annual Report.

EMILY H. SHAW.

PUBLIC HEALTH OFFICE,
MAY, 1924.

Infant Mortality

The deaths of ninety-five infants were registered during 1923. Ninety-four of these occurred in the Borough and the remaining one, of a child of Northampton parents, in London. The infant mortality is 57·2. This figure, although a little higher than during 1922, is still below that of England and Wales, as shewn in Table M. & C.W. 1. In the next table is set out the infant mortality during the past forty years. It will be seen that from 1881 to 1900 there is no tendency to decline, but from 1900 onwards the decline has been steady until this year when the figure, although above that of 1922, is still below that of any other year.

Table M. & C.W. 3 tabulates the causes of these ninety-five infants' deaths and compares this year with the last four years. Table M. & C.W. 4 shews the percentages of deaths attributed to the various causes, while Table D., right at the end of the report, gives the classification in more detail. In this table attention may also be directed to the very large mortality, as far as the small numbers dealt with go, among illegitimate babies when compared with that of legitimate ones. Premature birth is seen to be the most common cause of death. During 1923, thirty-seven of the total number of deaths were attributed to this cause, an increase of fifteen on the 1922 figure. This number does not include two premature babies whose deaths were not directly attributable to premature birth. Eleven died of enteritis and gastritis, a slight increase on the 1922 figure. The total shews a slight decrease in other causes of death. All infant deaths except one, which was an inward transfer from London, were investigated by the health visitors. This one exception was a girl baby who died when but a few hours old. Fifty infants died before they were a month old. Of these fifteen were first babies and thirty-five second or subsequent children. Forty-one (43·2 per cent. of the total deaths), nineteen boys and twenty-two girls, occurred under two weeks. Twenty-nine of these forty-one babies (70·7 per cent). were born prematurely. In only four cases were the mothers delivered instrumentally. Nine babies died between two and four weeks. Four of these were premature and all were born normally.

Forty-four (46·8 per cent.), twenty-five boys and nineteen girls, died between one month and one year. Six of these (13·7 per cent.) were premature babies. None were instrumentally delivered. Ten were the children of primiparæ and thirty-four of multiparæ.

Notification of Births

Table M. & C.W. 5 shews that 1,662 births were registered during the year and that 1,539 (92·8 per cent. of the total registered) were notified. In addition to these sixty-six stillbirths were notified, making a total of 1,605. The sources of notification are indicated in Table M. & C.W. 6.

The health visitors investigated 1,530 births during the year. Of these 1,413 (92·4 per cent.) were notified and 117 (7·6 per cent.) were not. Details are given in tabulated form in Table M. & C.W. 7. The 1,530 births investigated represent 1,499 separate confinements. 492 (32·8 per cent.) of these were first babies, 81 (5·5 per cent.) were premature, and thirty-one resulted in twins. Sixty-nine (2·1 per cent.) were illegitimate, thirty-nine of these being first babies.

From the table it will be observed that eighty-one of these babies were born prematurely. Of these, thirty-one were the children of primiparæ, twenty-nine live births and two stillbirths, the results of twenty-four separate confinements. Fifty were the children of multiparæ, forty-three live and seven stillbirths.

Forty-nine of the sixty-six stillbirths notified were investigated ; the remaining seventeen occurred in houses not visited by the nurses. Twenty-four stillbirths were attributed to obstructed labour and general condition of the mother. Adequate pre-natal supervision would certainly have reduced these numbers very considerably. There were three illegitimate stillbirths and these were possibly due to drugs or other means taken to prevent the birth of a live baby. Eight were alleged to be due to malpresentation, four to frights or falls, and four to antipartum hæmorrhage. In three cases the fœtus was macerated. Two stillbirths were attributed to delay in the birth of the second twin. In one case the mother was said to be small ; this seems a little doubtful as this mother had previously given birth to five living, full term, children.

Home Visitation

During the year the following visits have been paid by the health visitors :—

Total number of visits paid to households in which a birth is known to have occurred (the visit in the case of twins being counted as one)	10,309
Of these, first visits comprised	1,503
And subsequent visits	8,806
Total number of notified births visited	1,413
Total number of non-notified births visited	117

It was found on the first visit that forty-three of the infants (2·8 per cent. of the live births) had already died.

Also 575 visits have been paid to expectant mothers and 1,077 special visits to cases of ophthalmia neonatorum, whooping cough, measles, puerperal fever, infant deaths, etc.

General Arrangements

There are four full time health visitors attached to the Department and their work has continued on the same lines as heretofore. Each of them has charge of a certain area of the Town and is responsible for all the home visiting connected with the maternity and child welfare work in her area. The health visitors are not in any way concerned with the work among school children or tuberculous patients.

Table M. & C.W. 8 shews the attendances, consultations, etc. at the eight welfare centres in the Town. Each of these is open on one afternoon a week and a health visitor attends every time. The doctor attends fortnightly and on that day a second health visitor is present, taking charge of the weighing room and giving timely advice to the mothers. Mothers consult the doctor on matters connected with their health or that of their babies. The average number seeing the doctor varies from twenty-eight to thirty-nine at different centres.

The ladies of the Northampton Maternity and Infant Welfare Voluntary Association have charge of the social side of the work at the centres and arrange for friends interested in this work to talk to mothers on one afternoon in the month on non-medical subjects. The doctor attends on two afternoons and on the fourth the health visitor gives a short lecture on subjects connected with the health of the mother or baby.

Midwives

The midwives have been inspected periodically throughout 1923. Sixty-five routine and twenty special visits have been paid. Twenty-six midwives notified their intention to practise during the year. Eight of these were attached to the Queen Victoria Nursing Institution at different times and four to the Poor Law Institution. One practising in the County attended one case in the Borough and several of the others had very few cases. Three bona fide midwives continue to take cases. Most of the work is done by the nurses attached to the Queen Victoria Nursing Institution and three or four midwives practising independently. The notifications received from midwives are tabulated in Table M. & C. W. 9.

During the year two hundred and five women have been admitted to the Colwyn Road Maternity Home for confinement. Of these one hundred and fifty were from the Borough and fifty-five from the County or elsewhere. Rosslyn House was closed for the greater part of the year and only four patients were admitted. The homes are subject to inspection by the Assistant Medical Officer ; fourteen visits were paid during the year and on each occasion the arrangements appeared to be satisfactory and the patients well cared for and happy.

Maternity Homes

Pre-natal clinics have been held at the Queen Victoria Nursing Institution and at the Ambulance Hall in King Street. At the Queen Victoria Nursing Institution fifteen sessions were held and were attended by fifty-three women, patients of midwives attached to the Institution. Forty-four sessions were held at King Street, when one hundred and six patients were seen and advised. Most of these were invited by the health visitors. The midwives practising independently send very few cases. It is hoped that this branch of the work will be increased when a more suitable room is available for it. The room now used is not comfortable and not sufficiently private.

Pre-natal Clinics

There is no change in procedure in the dental department. The Dental Officer continues to treat patients (pregnant and nursing mothers and children under school age) recommended by the Assistant Medical Officer. The work in this department is done at much less cost than could be charged by a private dentist, but even so the bills seem very large for wives with husbands out of work, or on short time, and many of them put off the treatment because they will not owe so much money. This spirit should of course be encouraged, but, at the same time, it seems a pity that the health of the mothers and babies should suffer. During the year the cost of material was about £47, and bills amounting to about £67 have been sent to seventy-four patients. Just over £74 has been collected from these and from those who had accounts outstanding at the end of the previous year. The work done during the year is summarised in Table M. & C.W. 10.

Dental Work

Free milk is still supplied to necessitous pregnant and nursing mothers and to children up to one year of age, provided that the income of the family is below a certain scale approved by the Ministry of Health. Milk is allowed only during the last three months of pregnancy and only in very rare cases to children over one year old. The method of procedure in dealing with these cases is unchanged. An application form has to be filled up by the applicant and signed by herself and her husband. Verifications of statements made are obtained from employers, Pensions Office, Clerk to the Guardians, Unemployment Bureau, etc. A special sub-committee of the Maternity and Child Welfare

Assisted Milk Supply

Statutory Committee meets weekly to consider applications. One pint of milk (or two where there are twins) is allowed in the first instance for one month, after which a fresh request has to be made. Every statement of income, whether first or subsequent, is verified by inquiries from employers, etc.

In December the question of reduction of the scale of income below which milk is granted was considered, as it had been found that the scale in this Borough was higher than that of some other towns of similar size in which similar conditions prevail. It was decided however to let it remain unchanged for the present and to reconsider the matter later. 37,436½ pints of milk were supplied under contract with local firms at a cost of about £470. 1,377 applications were considered by the Committee of which 1,264, including 862 renewals, were granted. One hundred and thirteen applications were refused.

The sale of "Cow and Gate" dried milk on the recommendation of the Assistant Medical Officer and at a reduced rate is still continued at the Public Health Office. 4,463 one pound packets were sold to 162 separate customers during the year. This represents a weight of nearly two tons at a cost of about £400.

Free Dinners

The numbers of pregnant and nursing mothers attending the School Clinic for free dinners gradually diminished during the year and at the end there were no cases on the books. This form of assistance has never been very popular. The mothers find it difficult to leave home during the dinner hour and many prefer to share the family meal, however poor it may be, rather than leave husband and children and get a good dinner for themselves. During the first ten months of the year twenty-one women partook of these dinners. Five were on the books on January 1st and sixteen others were added between January 1st and September 9th. By the end of October all had ceased to attend, and none have accepted this form of assistance since.

Puerperal Fever

Puerperal fever accounted for fourteen notifications but only seven belonged to Northampton. Six were resident in the County and were admitted to the General Hospital; in one case the child was born at the Queen Victoria Maternity Home and the mother afterwards transferred to the General Hospital, where the doctor in charge reported that in spite of the notification before admission, she did "not call it a case of puerperal fever." One patient was resident at Chiswick and had come to Northampton for confinement.

Of the seven cases properly attributed to the Borough five were admitted to the General Hospital, one to the Union Infirmary and one remained at home. Information received after notification suggests that two of the women were not suffering from what is generally considered to be puerperal fever. One had a pelvic abscess, another was a case of influenza followed by a three months' abortion, another woman who was found to be suffering from a chronic vaginal discharge had no rise in temperature until the eleventh day and then developed signs of a generalised infection. Two notified cases which had been removed to hospital proved fatal. One of these was the above-named woman, who died as the result of an attack of influenza followed by an abortion. The other was a girl of twenty-three, an old tuberculous patient. She was instrumentally delivered of her first baby, the perineum was very badly torn, and puerperal fever supervened. The remaining five patients recovered. The fatality is therefore 28·6, a little lower than that of last year, when it was 33·3 per cent.

In addition to these, five other deaths occurred during the year in connection with parturition, three from eclampsia, one from puerperal toxic jaundice following the premature birth of a seven months' baby, and one from pneumonia. In this case the mother was taken ill with what was called influenza on February 1st, was delivered of twins, one stillborn, on the 8th, was notified as suffering from pneumonia on the 10th, and died on the 14th February.

Ophthalmia Neonatorum

Only seven cases of this disease were notified during the year. All the notifications were signed by medical practitioners. Four of the children were treated at home, one as an out-patient at the General Hospital, and two after being treated for some weeks as out-patients were admitted, with their mothers, as in-patients, the mothers as well as the infants requiring treatment. In all the discharge quite cleared and, as far as can be ascertained at present, the eyes have suffered no permanent damage and there is no impairment of vision. In two the confinements were conducted by doctors and in five by midwives. Two were illegitimate babies and in four cases there was strong presumptive evidence of venereal disease. Four patients were boys and three girls. The onset in one occurred at the age of two days, in five between seven and fourteen days, and in the remaining one at twenty-one days. These particulars are summarised in Table M. & C.W. 11.

Swabs from the eyes of three of the babies were examined bacteriologically; two of these shewed large numbers of gonococci, in the third none were found.

Diarrhœa and Enteritis

Nine children under the age of two years died of diarrhœa and enteritis during the year. The death-rate per thousand living for this disease is 0·10 and 5·4 per thousand births.

TABLE M. & C.W. 1. ENGLAND AND WALES AND NORTHAMPTON, 1919–1923.

INFANT MORTALITY. COMPARISON BETWEEN THE YEARS OF THE QUINQUENNIUM.

(From the figures of the Registrar General).

	INFANT MORTALITY.				
	1919	1920	1921	1922	1923
England and Wales	89	80	83	77	69
Great Towns (including London)	93	85	87	82	72
Smaller Towns	90	80	84	75	69
London	85	75	80	74	60
Northampton	82	74	66	52	57

TABLE M. & C.W. 2. NORTHAMPTON, 1881–1923.

BIRTH-RATE AND INFANT MORTALITY IN 1921–1923 AND IN EACH OF THE EIGHT PRECEDING QUINQUENNIA.

QUINQUENNIAL PERIODS.	BIRTH-RATE.	INFANT MORTALITY.
1881—1885	36·0	157·1
1886—1890	32·9	165·1
1891—1895	31·4	152·9
1896—1900	27·6	162·5
1901—1905	24·7	133·6
1906—1910	22·1	111·6
1911—1915	20·6	103·6
1916—1920	18·0	80·5
1921	20·4	65·9
1922	17·7	52·2
1923	17·8	57·2

Table M. & C.W. 3. Northampton, 1919–1923.
Infant Mortality. Causes of Death.

CAUSES OF DEATH.	1919	1920	1921	1922	1923
Atrophy, Debility, and Marasmus	21	31	23	13	10
Convulsions	2	8	6	3	3
Bronchitis and Pneumonia	33	31	19	18	14
Whooping Cough	2	5	2	1	—
Measles	—	2	—	1	2
Premature Birth	34	47	37	22	37
Diarrhœa, Enteritis, and Gastritis	2	14	15	6	11
All Other Causes	22	28	22	22	18
TOTAL DEATHS	116	166	124	86	95
TOTAL BIRTHS	1411	2248	1881	1646	1662
INFANT MORTALITY	82·2	73·8	65·9	52·2	57·2

Table M. & C.W. 4. Northampton, 1923.
Infant Mortality. Deaths from certain Groups of Diseases.

	Number.	Proportion per cent.
Common Infections	3	3.2
Diarrhœal Diseases	11	11.6
Premature Birth	37	38.9
Wasting Diseases	10	10.5
Tuberculous Diseases	2	2.1
All Other Causes	32	33·7
Totals	95	100·0

Table M. & C.W. 5. Northampton, 1923.
Comparison between the Number of Births which were Registered and Those which were Notified.

	MALES.	FEMALES.	TOTAL.
Number of Births Registered	797	865	1662
Number of Births Notified	767	838	1605
Number of Live Births Notified	735	804	1539

TABLE M. & C.W. 6. NORTHAMPTON, 1923.

NOTIFICATION OF BIRTHS. SOURCES OF NOTIFICATION.

	Number.	Proportion per cent.
Medical Practitioners	523*	32.6
Certified Midwives	859	53.5
Parents and Others	223	13.9
Totals	1605	100.0

*Includes 61 also notified by midwives.

TABLE M. & C.W. 7. NORTHAMPTON, 1923.

NOTIFICATION OF BIRTHS. NUMBER AND CLASSIFICATION OF NOTIFIED AND NON-NOTIFIED CASES OF BIRTH, THE CIRCUMSTANCES ATTENDING WHICH WERE THE SUBJECT OF INVESTIGATION.

Classification.	LIVE BIRTHS.								STILLBIRTHS.							
	MATURE.				PREMATURE.				MATURE.				PREMATURE			
	Single.		Multiple.		Single.		Multiple.		Single.		Multiple.		Single.		Multiple.	
	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.
	1310	60	37	2	56	2	14	0	27	4	9	0	8	1	0	0
Totals.	1370		39		58		14		31		9		9		0	
	1409				72				40				9			
	1481								49							
	1530															

TABLE M. & C.W. 8. NORTHAMPTON, 1923.
MATERNITY AND INFANT WELFARE CENTRES. STATISTICS.

CENTRE.	DAY OF MEETING. (2.30—4.30).	AVERAGE ATTENDANCE PER WEEK.			Average Number consulting Doctor per Session.
		Mothers (incl. Expectant Mothers).	Expectant Mothers.	Babies and Toddlers.	
Abington Avenue	Thursdays	51	2	53	39
Artizan Road	Fridays	48	2	56	36
Doddridge Memorial	Tuesdays	43	2	52	39
Far Cotton	Fridays	34	1	39	28
Hull Memorial	Thursdays	38	1	45	36
King Street	Wednesdays	36	2	41	31
Kingsthorpe	Tuesdays	29	1	36	29
St. Sepulchre's	Wednesdays	40	2	54	33
	Totals	319	13	376	271

TABLE M. & C.W. 9. NORTHAMPTON, 1923.
MIDWIVES ACTS. NOTIFICATIONS RECEIVED FROM MIDWIVES.

NATURE OF REPORT.	MIDWIVES NOTIFYING.	NO. OF REPORTS.	REMARKS.
Records of Sending for Medical Help ...	20	212	Mother's condition 158 Infant's condition 54
Notifications of Still-birth	7	28	Full Term .... 17 Premature 11
Notifications of Death	2	4	Mothers .... 2 Infants 2
Notifications of Artificial Feeding ...	7	28	Mother's condition 25 Infant's condition 3
Notification of Liability to be a Source of Infection	4	5	—
Notification of Having Laid Out a Dead Body	1	2	Mothers 2
Total	20	279	—

TABLE M. & C.W. 10. NORTHAMPTON, 1923.

SUMMARY OF DENTAL OPERATIONS.

NATURE OF OPERATION, ETC.	MOTHERS.	CHILDREN.	TOTALS.
Number seen	37	59	96
Number treated	33	42	75
Number of attendances	196	122	318
Number of teeth extracted	150	66	216
Number of administrations of local anæsthetic	39	23	62
Number of fillings	67	—	67
Number of linings	15	—	15
Number of teeth treated with nitrate of silver	40	228	268
Number of dressings	28	—	28
Number of scalings	9	—	9
Number of artificial plates	12	—	12
Number of plates remodelled	4	—	4
Number of plate repairs	9	—	9
Number of teeth on plates	121	—	121
Number of other operations	9	—	9
Number completed	20	36	56
Number partly completed, continued to 1924	12	2	14

TABLE M. & C.W. 11. NORTHAMPTON, 1923.

OPHTHALMIA NEONATORUM. ANALYSIS OF CASES NOTIFIED, WITH ULTIMATE RESULT.

CASES NOTIFIED.	TREATED.		ULTIMATE RESULT.			
	AT HOME.	IN HOSPITAL.	VISION UNIMPAIRED.	VISION IMPAIRED.	TOTAL BLINDNESS.	DIED.
7	4	3*	7	—	—	—

*One out-patient and two, after having been treated for several weeks as out-patients, were admitted as in-patients at the General Hospital.

See also Section V. of Medical Officer's Report (page 33).

APPENDIX III.

STATISTICAL TABLES.

Table 1. Northampton, 1914–1923.

Natural Increase of Population in Each Year of the Decennium

Year. (middle)	Population. (total)	Births.	Deaths.	Natural Increase of Population.	Increase per 1,000.
1914	91123	1857	1253	604	6·6
1915	91123	1754	1536	218	2·4
1916	93709	1893	1148	745	7·9
1917	91932	1471	1175	296	3·2
1918	90884	1313	1385	—	—
1919	92653	1411	1218	193	2·1
1920	92950	2248	1047	1201	12·9
1921	92300	1881	964	917	9·9
1922	92950	1646	1046	600	6·4
1923	93230	1662	1086	576	6·2

Table 2. Northampton, 1921.

Census Statistics relating to Municipal Wards.

WARD.	POPULATION, 1921.			Compared with 1911.	Area in Acres.	Persons per Acre.	Separate Dwellings Occupied.	Rooms per Person.
	Males.	Females.	Total.					
Abington	2953	3435	6388	+ 305	298	21·4	1528	1·47
Castle	4746	5276	10022	— 500	145	69·1	2039	1·06
Delapre	2593	2658	5251	+ 517	382	13·7	1174	1·26
Kingsley	2720	3336	6056	+ 487	454	13·3	1416	1·44
Kingsthorpe ...	3324	3748	7072	+1012	584	12·1	1668	1·29
North	4605	4819	9424	— 34	99	95·2	1916	1·16
St. Crispin's ...	3542	3841	7383	— 189	79	93·5	1547	1·27
St. Edmund's	3146	3704	6850	— 214	98	69·9	1645	1·35
St. James'	4467	4746	9213	+ 741	398	23·1	2026	1·25
St. Lawrence's	3367	3959	7326	— 244	277	26·4	1582	1·28
St. Michael's ...	3993	4605	8598	— 733	103	83·5	1950	1·38
South	3415	3897	7312	— 317	552	13·2	1402	1·24
County Borough	42871	48024	90895	+ 831	3469	26·2	19893	1·27

TABLE 3. NORTHAMPTON, 1921.
CENSUS STATISTICS RELATING TO AGE AND SEX AND MARITAL CONDITIONS.

QUINQUENNIAL AGE GROUPS.	NUMBERS.			PERCENTAGES.*	
	MALES.	FEMALES.	TOTAL.	MALES.	FEMALES.
0— 4	3695	3376	7071	8·6	7·0
5— 9	3811	3750	7561	8·9	7·8
10—14	3914	4156	8070	9·0	8·7
15—19	3840	4395	8235	9·0	9·2
20—24	3540	4612	8152	8·3	9·6
25—29	3405	4224	7629	7·9	8·8
30—34	3226	3915	7141	7·5	8·2
35—39	3081	3608	6689	7·2	7·5
40—44	2960	3321	6281	6·9	6·9
45—49	2900	3032	5932	6·8	6·3
50—54	2465	2547	5012	5·8	5·3
55—59	1963	2087	4050	4·6	4·3
60—64	1542	1708	3250	3·6	3·6
65—69	1136	1354	2490	2·7	2·8
70—74	739	915	1654	1·7	1·9
75—79	409	601	1010	1·0	1·3
80—84	184	298	482	0·4	0·6
85—89	54	105	159	0·1	0·2
90—94	5	17	22	0·0	0·0
95 and over	2	3	5	0·0	0·0
All Ages	42871	48024	90895	100·0	100·0
Marital Condition :—					
Single	21903	24606	46509	51·1	51·2
Married	19225	19431	38656	44·8	40·5
Widowed	1720	3973	5693	4·0	8·3
Divorced	23	14	37	0·1	0·0

*Sex Percentages—Males 47·2 ; Females 52·8.

TABLE 4. ENGLAND AND WALES AND NORTHAMPTON, 1914–1923.
BIRTH-RATES IN EACH YEAR OF THE DECENNIUM.

	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
England & Wales	23.8	21.8	21.6	17.8	17.7	18.5	25.4	22.4	20.6	19.7
Northampton	20.4	19.3	20.2	16.0	14.4	15.3	24.2	20.4	17.7	17.8

TABLE 5. ENGLAND AND WALES AND NORTHAMPTON, 1914–1923.
DEATH-RATES IN EACH YEAR OF THE DECENNIUM.

	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
England & Wales	13.7	14.8	14.0	14.4	17.6	13.8	12.4	12.1	12.9	11.6
Northampton	13.8	17.0	13.3	14.2	17.1	13.7	11.3	10.4	11.3	11.6

TABLE 6. NORTHAMPTON, 1923.

SUMMARY OF ROUTINE WORK CARRIED OUT BY THE INSPECTORS OF THE DEPARTMENT DURING THE YEAR.

	Number of Inspections, etc.	No. at which Nuisances, Contraventions or Defects found
1.—Total Number of Inspections and Visits	15697	
2.—Number of Premises at which Nuisances were Found		1254
3.—Number of Houses Inspected	2247	1138
4.—Number of these Houses Repaired		582
5.—Number of these Houses Cleansed and Whitewashed		628
6.—Number of Houses Cleansed after Certificate of M.O.H. (Sec. 46, P.H.A. 1875)		29
7.—Number of First Visits made in consequence of Complaints by Residents	759	626
8.—Statutory Notices Served	642	
9.—Drains :—		
Tested by Smoke Test	77	56
Tested by Volatile Test	26	6
Tested by Water Test	4	1
Exposed under Sec. 41, P.H.A. 1875	15	15
Drains reported choked		131
Drains reconstructed		97
Drains repaired		45
Bath, lavatory or sink waste pipes disconnected from drains		1
New pans fixed to closets		44
Indoor soil pipes abolished		1
Closets supplied with flushing apparatus		5
10.—Contraventions of Bye-laws :—		
Animals kept so as to be a nuisance		3
Animals kept in contravention of Bye-laws		3
Accumulations of manure, etc., removed		25
Other contraventions		1
11.—Other Nuisances :—		
Overcrowding in houses		13
Yard pavings re-laid or repaired		79
Spoutings repaired or renewed		108
New slop sinks fixed		45
Inspections of courts and alleys	7	4
Houses supplied with town water		0
Smoke observations	30	15
Miscellaneous nuisances		290

TABLE 6.—*continued.*

	Number of Inspections, etc.	No. at which Nuisances, Contraventions or Defects found
12.—Factories and Workshops :—		
Number of Factories Inspected	92	30
Number of Workshops Inspected	278	32
Number of Workplaces Inspected	136	29
Number of Outworkers' Premises Inspected	182	8
13.—Dairies, Cowsheds, and Milkshops :—		
Number of Inspections	338	21
Number of New Registrations	34	
14.—Bakehouses—Number of Inspections	330	62
15.—Slaughterhouses :—		
Number of Inspections while Slaughtering was in Progress	3982	124
Number of other Inspections	213	37
16.—Other Premises where Food is Manufactured or Stored—Number of Inspections	1208	27
17.—Food and Drugs Acts—Number of Samples sent to Analyst	282	35
18.—Infectious Diseases—Visits to Infected Houses—		
(*a*) First visits for investigation	853	
(*b*) Weekly visits to secure isolation	646	
(*c*) Visits to control disinfection	577	
Houses stripped under I.D.P. Act	339	
19.—Tuberculosis—Houses stripped, etc. under Tuberculosis Regulations, etc.	89	
20.—Number of Visits for Inspection of :—		
(*a*) Schools	18	2
(*b*) Public Lavatories	59	1
(*c*) Van-dwellers	23	1
(*d*) Cinemas, etc.	33	7
21.—House-to-House Inspection—Number of Houses Inspected (excluding Housing Survey)	258	153
Houses Cleansed and Whitewashed		101
Defective Houses Repaired		66
Number of Inspections under Housing Survey...	80	
Houses unfit for Human Habitation reported to M.O.H. under :—		
(*a*) Sec. 17, H.T.P. Act, 1909	3	3
(*b*) Sec. 28, H.T.P. Act, 1919	8	8

TABLE 7. NORTHAMPTON, 1923.

DRAIN EXAMINATION UNDER SECTION 41 OF THE PUBLIC HEALTH ACT, 1875.

SITUATION OF PREMISES.	RESULT OF EXAMINATION.	REMARKS.
Bath Street, 97	Defective	Reconstructed
Bouverie Street, 45, 47, 49, & 51	Defective	Reconstructed
Cowper Street, 60	Defective	Reconstructed
Fort Street, 3 & 5	Defective	Reconstructed
Nelson Street, 2nd Square, 7	Defective	Reconstructed
Newland, 25	Defective	Reconstructed
Roe Road, 13	Defective	Repaired
Vigo Cottages, 1 & 2	Defective	Reconstructed
Wellingborough Road, 163 & 165	Defective	Repaired
No. of Drains examined		15

TABLE 8. NORTHAMPTON, 1923.

RECONSTRUCTION OF DRAINS.

SITUATION OF PREMISES.	NO. OF HOUSES.
Bath Street, 97	1
Bouverie Street, 16, 18, 20, 45, 47, 49, 51	7
Broad Street, 2, 4, 6, 8	4
Colwyn Road, 2, 4, 65	3
Cowper Street, 60, 62	2
Cromwell Street, 1	1
Deal Street, 36, 38	2
Fort Street, 3, 5, 7, 9, 11	5
Gold Street, 52	1
Gordon Street, 38, 40, 42, 44	4
Junction Road, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 78, 80, 82, 84, 86, 88	20
Nelson Street, 2nd Square, 1, 3, 5, 7, 9, 11, 13	7
Nelson Street, 3rd Square, 2, 4, 6, 8, 10, 12, 14	7
New Town Road, 62	1
Newland, 25	1
Perry Street, 63, 65	2
Portland Street, 2	1
St. Giles' Street, 30, 32, 34	3
St. James' Street, 37, 39	2
Scarletwell Street, 42, 44, 46, 48, 50, 52	6
Sheep Street, 32	1
Stockley Street, 6, 8, 10, 12, 35, 37	6
South Street, 4, 5, 6	3
Vernon Terrace, 34, 36, 38, 40	4
Vigo Cottages, 1, 2	2
Wellingborough Road, 133	1
Total	97

TABLE 9. NORTHAMPTON, 1923.

UNSOUND FOOD. STATEMENT OF CARCASES OF MEAT CONDEMNED, SHEWING NUMBER AFFECTED WITH TUBERCULOSIS.

	MEAT CONDEMNED.		MEAT FOUND TO BE TUBERCULOUS.	
	WHOLE CARCASES	PART CARCASES	WHOLE CARCASES	PART CARCASES
Beef	87	32	57	28
Mutton	48	1	—	—
Pork	92	168	59	168
Veal	7	—	1	—

TABLE 10. NORTHAMPTON, 1923.

UNSOUND FOOD VOLUNTARILY SURRENDERED AND DESTROYED.

NATURE OF FOOD.	WEIGHT.			
	TONS.	CWTS.	QRS.	LBS.
Beef, home killed	26	1	1	22
Beef, imported	—	9	1	18
Mutton, home killed	—	16	3	12
Mutton, imported	—	—	—	10
Offal, home killed	1	18	2	3
Offal, imported	—	4	3	7
Pork, home killed	7	13	1	16
Veal, home killed	—	4	1	13
Bacon	—	—	—	7
Eggs, imported	—	2	1	7
Fish	2	10	2	0
Fruit	—	13	0	25
Vegetables	—	4	1	2
Total (577 surrenders)	40	19	1	2

Also—943 tins of food, 2 pigeons, and 46 rabbits.

TABLE 11. NORTHAMPTON, 1919–1923.

UNSOUND FOOD. AMOUNT DEALT WITH BY THE DEPARTMENT IN EACH OF THE LAST FIVE YEARS.

YEAR.	WEIGHT.			
	TONS.	CWTS.	QRS.	LBS.
1919	66	6	3	1
1920	46	0	3	12
1921	29	15	2	0
1922	46	17	0	2
1923	40	19	1	2

TABLE 12. NORTHAMPTON, 1923.

FOOD AND DRUGS. SAMPLES TAKEN FOR ANALYSIS.

(*a*) INFORMAL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Arrowroot	2	—
Baking Powder	5	—
Borax	3	—
Cream	12	2
Cream (preserved)	3	—
Cream of Tartar	3	—
Flour (self-raising)	2	—
Glauber Salts	2	—
Gregory Powder	5	1
Lime Juice Cordial	1	—
Magnesia	2	1
Milk	9	6
Orange Wine	1	—
Paste (fish and meat)	4	—
Sausages	5	2
Sulphate of Soda	1	—
White Precipitate Ointment	2	—
Totals	62	12

(*b*) OFFICIAL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Ammoniated Tincture of Quinine	1	—
Arrowroot	2	—
Baking Powder	1	—
Butter	7	—
Camphorated Oil	5	—
Cheese	2	—
Cocoa	2	—
Cream	1	1
Dripping	4	—
Flour (self-raising)	1	—
Ipecacuanha Wine	3	1
Jam	2	—
Lard	6	—
Margarine	8	—
Milk	154	21
Milk (separated)	6	—
Pepper	2	—
Potted Meat	5	—
Sweet Spirits of Nitre	4	—
Sugar	1	—
Vinegar	3	—
Totals	220	23

(*c*) ALL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Informal Samples	62	12
Official Samples	220	23
Totals	282	35

TABLE 13. NORTHAMPTON, 1914—1923.

ZYMOTIC DEATHS AND DEATH-RATES.

	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
Number of Deaths	103	246	37	77	39	23	44	32	25	26
Death-rates	1.13	2.72	0.43	0.93	0.48	0.26	0.48	0.35	0.27	0.28

TABLE 14. NORTHAMPTON, 1923.

ZYMOTIC DISEASES. DEATHS IN MUNICIPAL WARDS.

WARD	Smallpox	Measles	Scarlatina	Whooping Cough	Diphtheria	Typhoid Fever	Diarrhœa (Under 2 years)	Total
Abington	—	—	—	—	—	—	—	—
Castle	—	4	—	—	—	—	1	5
Delapre	—	—	—	—	—	—	1	1
Kingsley	—	—	—	—	—	—	—	—
Kingsthorpe...	—	—	—	—	2	—	—	2
North	—	1	4	—	—	—	—	5
St. Crispin's	—	—	1	—	1	—	1	3
St. Edmund's	—	—	—	—	—	—	2	2
St. James' ...	—	—	—	—	—	—	2	2
St. Lawrence's	—	1	—	—	1	—	—	2
St. Michael's	—	—	—	—	—	—	—	—
South	—	1	1	—	—	—	2	4
Borough	—	7	6	—	4	—	9	26

TABLE 15. NORTHAMPTON, 1923.

MEASLES AND RUBELLA, AND WHOOPING COUGH. MONTHLY INCIDENCE AND MORTALITY.

MONTHS.	MEASLES AND RUBELLA.		WHOOPING COUGH.	
	CASES REPORTED.*	DEATHS.	CASES REPORTED.*	DEATHS.
January	285	3	1	—
February	109	1	6	—
March	13	1	2	—
April	9	1	—	—
May	8	—	2	—
June	1	—	2	—
July	34	—	2	—
August (holiday)	1	1	—	—
September	1	—	1	—
October	3	—	3	—
November	1	—	1	—
December	—	—	1	—
Totals	465	7	21	—

*Reported from Public Elementary Schools.

TABLE 16. NORTHAMPTON, 1919—1923.

ENTERICA.

Year.	Notifications.	Attack-rates per 1,000.	Deaths.	Death-rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
1919	3	0·03	—	—	—	1	33·3
1920	1	0·01	—	—	—	1	100·0
1921	12	0·13	1	0·01	8·3	10	83·3
1922	3	0·03	—	—	—	2	66·7
1923	10	0·11	—	—	—	5	50·0

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

TABLE 17. NORTHAMPTON UNION, 1903—1922.

VACCINIA. NUMBER OF CHILDREN PER CENT. WHO HAVE NOT BEEN VACCINATED, AFTER DEDUCTING THE NUMBER DEAD BEFORE VACCINATION TOOK PLACE.

YEAR.	PROPORTION PER CENT.	YEAR.	PROPORTION PER CENT.
1903	62·9	1913	80·1
1904	76·2	1914	82·7
1905	66·8	1915	83·8
1906	67·1	1916	83·8
1907	76·8	1917	83·7
1908	78·3	1918	83·0
1909	80·5	1919	83.6
1910	81·8	1920	87.4
1911	82·3	1921	88·4
1912	84·7	1922	88·2

TABLE 18. NORTHAMPTON, 1919—1923.

SCARLATINA.

Year.	Notifications.	Attack-rates per 1,000.	Deaths.	Death-rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
1919	71	0·80	—	—	—	44	62·0
1920	62	0·66	—	—	—	49	79·0
1921	118	1·28	1	0·01	0·8	89	75·4
1922	297	3·19	2	0·02	0·7	175	58·9
1923	409	4·39	6	0·06	1·5	247	60·4

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

TABLE 19. NORTHAMPTON, 1923.

SCARLATINA. GENUINE NORTHAMPTON CIVIL CASES. AGE AND SEX DISTRIBUTION.

	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	Total under 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and over	Total
Males ...	1	2	6	14	9	32	107	21	5	1	—	166
Females	—	3	6	18	7	34	153	27	15	—	—	229
Totals ..	1	5	12	32	16	66	260	48	20	1	—	395

TABLE 20. NORTHAMPTON, 1919—1923.

DIPHTHERIA.

Year.	Notifications.	Attack-rates per 1,000.	Deaths.	Death-rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
1919	99	1·11	10	0·11	10·1	77	77·7
1920	202	2·18	9	0·10	4·4	144	71·3
1921	217	2·35	9	0·10	4·1	142	65·4
1922	169	1·82	9	0·10	5·3	102	60·3
1923	82	0·88	4	0·04	4·9	58*	70·7

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

* Includes two removals from General Hospital to Borough Hospital and four cases treated at General Hospital only.

TABLE 21. NORTHAMPTON, 1923.

DIPHTHERIA. GENUINE NORTHAMPTON CIVIL CASES. AGE AND SEX DISTRIBUTION.

	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	Total under 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and over	Total
Males ...	—	2	3	2	4	11	14	2	—	—	—	27
Females	1	—	6	2	3	12	22	9	4	—	—	47
Totals ..	1	2	9	4	7	23	36	11	4	—	—	74

TABLE 22. NORTHAMPTON, 1923.

BOROUGH HOSPITAL, HARBOROUGH ROAD. CASES OF COMMUNICABLE DISEASE UNDER TREATMENT.

	Scarlatina.	Diphtheria.	Enterica.	Other.	Total.
No. remaining from 1922	38	10	—	1*	49
No. admitted during 1923	251	55	6	—	312
No. discharged during 1923	239	58	5	1	303
No. died during 1923	3	2	—	—	5
No. remaining at end of 1923	47	5	1	—	53

*One case of chickenpox.

TABLE 23. NORTHAMPTON, 1915–1923.

PULMONARY TUBERCULOSIS. INCIDENCE AND MORTALITY AMONGST BOOT AND SHOE OPERATIVES (MALE AND FEMALE).

OCCUPATIONS, ETC.	NOTIFIED CASES INVESTIGATED.							DEATHS REGISTERED.						
	1915–18	1919	1920	1921	1922	1923	1919–23	1915–18	1919	1920	1921	1922	1923	1919–23
All Occupations	780	190	190	134	108	119	741	529	105	92	97	82	82	458
All Occupations less House-workers	636	145	149	110	95	84	583	417	89	75	77	74	61	376
Boot and Shoe Operatives ...	319	63	81	53	41	41	279	241	40	34	32	40	29	175
Proportion per cent. of :— (1) All Occupied who are Boot and Shoe Operatives...	40·9	33·2	42·6	39·5	38·0	34·4	37·6	45·5	38·1	37·0	33·0	48·8	35·4	38·2
(2) All Extra-domestic Workers who are Boot and Shoe Operatives	50·2	43·4	54·4	48·2	43·2	48·8	47·8	57·8	45·0	45·3	41·5	54·0	47·5	46·7

Table 24. Northampton, 1909–1923.

Pulmonary Tuberculosis. Incidence and Mortality amongst Boot and Shoe Operatives (Males only). Proportion per cent. in certain Groups.

QUINQUENNIA.	*a.**	*b.*	*c.*	*d.*	*e.*
Notified Cases Investigated :—					
1909–1913	25·5	25·1	33·1	4·4	11·9
1914–1918	14·3	23·4	25·1	10·1	27·1
1919–1923	15·9	29·6	27·6	6·3	20·6
1909–1923 (15 years)	18·6	25·5	28·4	7·1	20·4
Deaths Registered :—					
1909–1913	25·9	21·6	29·6	3·7	19·2
1914–1918	19·0	25·6	25·5	9·2	20·7
1919–1923	17·7	28·5	30·8	6·9	16·1
1909–1923 (15 years)	20·8	25·0	28·1	7·0	19·1

*Classification of Male Operatives—(*a*) Clicker ; (*b*) Laster ; (*c*) Finisher ; (*d*) Pressman and Roughstuff Worker ; and (*e*) General and Warehouseman.

Table 25. Northampton, 1923.

Number of Articles Disinfected by Steam Month by Month at the Disinfecting Station, St. Andrew's Road.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
637	431	742	847	605	456	457	591	580	713	1109	820	7988

TABLE 26. NORTHAMPTON, 1923.

CLINICAL BACTERIOLOGY. NUMBER OF SUSPECTED CASES IN WHICH EXAMINATION WAS MADE AND THE NUMBER AND NATURE OF THE REPORTS RECEIVED IN CONNECTION WITH THESE.*

DIPHTHERIA—Throat and Nose Secretions.				TYPHOID AND PARATYPHOID FEVERS—Dreyer's Tests, etc.				TUBERCULOSIS—Sputum, Urine, etc.				OTHER CONDITIONS.				TOTAL.			
No. of Suspected Cases	Reports received.			No. of Suspected Cases	Reports received.			No. of Suspected Cases	Reports received.			No. of Suspected Cases	Reports received.			No. of Suspected Cases	Reports received.		
	Positive	Negative	Total		Positive	Negative	Total		Positive	Negative	Total		Positive	Negative	Total		Positive	Negative	Total
337	183	529	712	11	2	10	12	389	176	336	512	8	2	6	8	745	363	881	1244

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* The above Table does not take into account the reports made in connection with the venereal diseases scheme.

TABLE 27. NORTHAMPTON, 1923. METEOROLOGICAL

MONTH.	RAINFALL.				TEMPERATURE.						DIRECTION OF WIND.				Quarters.
	Total inches.	Greatest in 24 hours.		Days in which 0.01 in. or more fell.	Mean.	Maximum.		Minimum.		No. of Nights at or below 32 deg.	S. W. Quadrant including W. Days.	S.E. Quadrant including S. Days.	N.E. Quadrant including E. Days.	N.W. Quadrant including N. Days.	
		Depth.	Date.			Deg.	Date.	Deg.	Date.						
January ...	1·07	0·33	5	15	41·92	54·9	31	25·7	17	9	12	1	2	16	First.
February	3·77	0·59	7	23	40·76	57·4	1	31·2	21	3	13	9	2	4	
March	1·92	0·50	12	18	43·80	67·3	27	30·7	12	1	8	7	14	2	
April	1·89	0·47	11	16	45·91	65·9	4	32·4	23	1	7	10	10	3	Second.
May	1·07	0·16	27	15	50·63	76·3	4	33·8	24	—	14	—	6	11	
June	0·63	0·18	25	14	55·30	75·9	29	37·3	3	—	4	1	5	20	
July	2·47	0·74	9	11	65·21	92·2	12	49·9	27	—	15	4	3	9	Third.
August ...	1·54	0·47	23	13	60·56	80·4	13	43·6	31	—	24	1	—	6	
September	2·48	0·89	14	15	55·45	71·8	29	40·5	16	—	19	2	—	9	
October ...	3·41	0·53	25	24	49·88	63·5	1	34·6	5	—	22	3	2	4	Fourth.
November	1·68	0·71	13	16	38·02	57·7	3	21·4	27	17	14	1	3	12	
December	2·63	0·49	30	21	38·21	50·4	17	25·0	25	19	15	5	1	10	
Year 1923	24·56	0·89	Sept. 14	201	48·80	92·2	July 12	21·4	Nov. 27	50	167	44	48	106	

TABLE 28. NORTHAMPTON, 1923.

HOUSING, TOWN PLANNING, &C. ACT, 1909. HOUSES REPRESENTED BY THE MEDICAL OFFICER OF HEALTH PREVIOUS TO 1923, BUT NOT FINALLY DEALT WITH BEFORE THIS YEAR BEGAN. ACTION TAKEN DURING 1923 AND CONDITION AT THE END OF THE YEAR.

HOUSES.	DATE OF			REMARKS.
	Representation.	Closing Orders.	Demolition Orders.	
Bearward Street, 31 ...	24–9–19	1–12–19	—	Used as store.
Bearward Street, 36 ...	19–2–19	2–6–19	—	I.S.Q.
Chalk Lane, 22, 23, 24, & 25	21–9–21	—	—	I.S.Q.
Chapel Place, 11, 12, & 13	24–9–19	—	—	I.S.Q.
Chapel Place, 14, 15, 16, 17, 18, & 19	16–10–19	—	—	I.S.Q.
Freeschool Street, 18 & 20	21–10–14	1–3–15	4–10–15	I.S.Q.
Freeschool Street, 22, 24, & 26	21–1–20	7–6–20	—	No. 22 unoccupied, Nos. 24 and 26 demolished.
Freeschool Street, 28 ...	25–9–12	2–12–12	7–7–13	Demolished.
Green Street, 58, 60, & 62	23–4–19	28–7–19	—	I.S.Q.
King Street, 10 & 11	17–12–19	8–3–20	—	I.S.Q.
Leicester Street, 6, 8, & 10	17–12–19	—	—	I.S.Q.
Manor Road, 7	21–1–20	—	—	I.S.Q.
Manor Road, 9, 9*a*, & 9*b*	23–2–21	4–4–21	—	Demolished.
Nelson Street, 17	19–11–19	—	—	I.S.Q.
Nelson Street, 18	19–11–19	4–4–21	1–5–22	Demolished.
Riding, 7 & 8	20–9–22	1–1–23	—	I.S.Q.
Riding, 15	20–9–22	4–12–22	—	I.S.Q.
Riding, 16, 17, 18, 19, 20, 21, & 22	19–7–22	4–12–22	—	I.S.Q.
Riding, 25, 26, 27, 28, 29, & 32	20–9–22	4–12–22	—	I.S.Q.
Riding, 33, 34, 35, 36, 37, 38, & 39	20–9–22	1–1–23	—	I.S.Q.
St. Mary's Street, 4 & 6	31–10–12	10–2–13	8–1–14	Used as store.
Swan Street, 23, 25, & 27	24–3–20	—	—	I.S.Q.
Todd's Lane, 1, 3, 5, 7, 9, 11, 13, 15, 17, & 19; 2, 4, 6, 8, 10, 12, 14, & 16	24–4–22	—	—	Larger scheme not proceeded with. Certain work done under Public Health Acts.

I.S.Q. (*in statu quo*)—Condition remains as in Tables in 1920 or subsequent Reports.

TABLE 29. NORTHAMPTON, 1923.

HOUSING, TOWN PLANNING, &c. ACT, 1909. HOUSES REPRESENTED BY THE MEDICAL OFFICER OF HEALTH DURING THE YEAR. SUBSEQUENT ACTION AND CONDITION AT THE END OF THE YEAR.

HOUSES.	DATE OF			REMARKS.
	Representation.	Closing Orders.	Demolition Orders	
Melbourne Street, 53 ...	21–3–23	30–7–23	—	Occupied.
Scarletwell Street, 111 & 113	21–2–23	—	—	No. 111 dealt with under Public Health Acts. Closing Order on 4–6–23 on No. 113; unoccupied.

TABLE 30. NORTHAMPTON, 1923.

RESULTS OF LEGAL PROCEEDINGS FOR FAILURE TO COMPLY WITH NOTICES UNDER THE PUBLIC HEALTH ACT, 1875.

MONTH.	OFFENCE.	VERDICT AND REMARKS.
August	Failure to execute repairs, cleansing, and white-washing. (Section 94)	After two adjournments, the work was completed and the summons withdrawn.
August	Failure to carry out drain repairs. (Section 41)	Ditto
August	Ditto	Ditto

TABLE A. (L.G.B. TABLE I.)

COUNTY BOROUGH OF NORTHAMPTON.

Vital Statistics during 1923 and previous Years.

Year.	Population estimated to Middle of each Year.	Births.			Total Deaths registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.		Number.	Rate.	Non-residents registered in the District.	Residents not registered in the District.	Under 1 Year of Age		At all Ages.	
			Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1918	81113	1316	1313	14.4	1426	17.6	122	81	121	92.2	1385	17.1
1919	88944	1432	1411	15.3	1301	14.6	137	54	116	82.2	1218	13.7
1920	92488	2318	2248	24.2	1137	12.3	130	40	166	73.8	1047	11.3
1921	92300	1924	1881	20.4	1022	11.1	123	65	124	65.9	964	10.4
1922	92950	1697	1646	17.7	1108	11.9	116	54	86	52.2	1046	11.3
1923	93230	1723	1662	17·8	1177	12.6	140	49	95	57.2	1086	11.6

This Table is arranged to shew the gross births and deaths in the district and the births and deaths properly belonging to it with the corresponding rates.

In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the district, but excluding the deaths of soldiers and sailors that have occurred in Hospitals and Institutions in the district. Such deaths are as follows:—

YEAR.	NO. OF DEATHS.
1918	69
1919	9
1920	1
1921	0
1922	0
1923	1

Area of District in acres (land and inland water)	3,469	
Total Population at all ages	90,895	At Census 1921.
Total families or separate occupiers ...	21,979	

TABLE B. (L.G.B. TABLE II.)

COUNTY BOROUGH OF NORTHAMPTON.

Cases of Infectious Diseases notified during the Year 1923.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH WARD.												Total Cases removed to Borough Hospitals
	At all Ages.	At Ages—Years.																			
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Abington	Castle	Delapre	Kingsley	Kingsthorpe	North	St. Crispin's	St. Edmund's	St. James'	St. Lawrence's	St. Michael's	South	
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	82	1	26	39	11	5	...	...	1	16	3	5	8	8	2	7	7	12	6	7	54
Erysipelas	32	...	1	1	3	8	13	6	1	5	1	...	2	4	2	4	1	8	3	1	...
Scarlatina	409	1	66	267	54	20	1	...	11	35	37	19	20	103	26	16	46	42	19	35	247
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enterica	10	...	...	2	4	2	2	...	2	2	...	1	...	1	...	1	...	...	1	2	5
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	14	...	...	...	8	6	...	...	...	1	1	...	1	3	1	...	...	...	1	6	...
Cerebro-spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis	2	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
Ophthalmia Neonatorum	7	7	...	...	...	...	...	...	...	1	...	1	...	...	1	...	...	...	2	2	...
Pulmonary Tuberculosis	137	...	1	12	33	58	30	3	7	23	6	11	12	16	17	6	15	7	8	9	73*
Other Forms of Tuberculosis	28	1	8	5	7	6	1	...	...	3	5	1	1	6	2	1	...	5	2	2	...
Pneumonia	354	22	68	54	36	91	57	26	11	62	21	19	22	40	30	15	48	34	29	23	...
Encephalitis Lethargica	3	...	...	...	2	1	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...
Polio-encephalitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	228	12	81	126	5	4	...	...	18	14	71	12	11	21	12	15	34	4	9	7	...
Totals	1306	44	252	507	163	201	104	35	52	162	145	70	77	202	93	65	151	113	80	96	379

*Twenty-nine to Creaton Sanatorium.

The above figures are exclusive of cases notified amongst the Military, but take no account of corrections in diagnosis.

Isolation Hospitals—(1) Harborough Road (Infectious Diseases); (2) Welford Road (Tuberculosis); (3) Near Hardingstone (Smallpox).

Total Available Beds—about 120. Sanatorium—County Sanatorium, Creaton, Northamptonshire—60 Beds (20 for Northampton County Borough)

TABLE C. (L.G.B. TABLE III.)

COUNTY BOROUGH OF NORTHAMPTON.

Causes of and Ages at Death during the Year 1923.

Causes of Death.		Nett Deaths at the Subjoined Ages of "Residents" whether occurring within or without the District.									Total Deaths whether of Residents or Non-Residents in Institutions in the District.
		All Ages	Under 1 year	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and upwards	
ALL CAUSES	Certified	1081	95	15	22	26	41	122	295	465	325
	Uncertified	5	...	...	...	...	...	...	...	5	...
1. Enteric Fever		...	...	...	...	...	...	...	...	...	...
2. Smallpox		...	...	...	...	...	...	...	...	...	...
3. Measles		7	2	3	2	...	...	...	...	...	...
4. Scarlet Fever		6	...	...	2	3	1	...	...	...	...
5. Whooping Cough		...	...	...	...	...	...	...	...	...	...
6. Diphtheria		4	1	...	1	2	...	...	...	...	3
7. Influenza (see also 17 (*a*))		9	...	...	...	...	2	...	2	5	1
8. Erysipelas		2	...	...	...	...	...	1	1	...	1
9. Phthisis (Pulmonary Tuberculosis) ...		84	...	...	...	2	16	41	25	...	7
10. Tuberculous Meningitis		9	1	...	4	2	2	...	...	...	7
11. Other Tuberculous Diseases		7	1	1	...	...	2	2	1	...	3
12. Cancer, Malignant Disease		136	...	...	...	...	...	11	67	58	31
13. Rheumatic Fever		2	...	...	...	1	...	1	...	...	1
14. Meningitis		1	...	1	...	...	...	...	...	...	...
*15. Heart Disease		107	...	...	...	2	2	15	39	49	24
16. Bronchitis		93	6	...	...	1	...	4	19	63	13
*17. Pneumonia (all forms)		79	8	5	6	3	7	19	20	11	10
18. Other Diseases of Respiratory Organs		21	...	1	...	...	...	...	10	10	4
19. Diarrhœa and Enteritis		9	9	...	...	...	...	...	...	...	3
20. Appendicitis and Typhlitis		6	...	...	...	3	...	...	2	1	15
21. Cirrhosis of Liver		4	...	...	...	...	...	...	3	1	2
21a. Alcoholism		...	...	...	...	...	...	...	...	...	1
22. Nephritis and Bright's Disease ...		23	...	...	...	2	...	4	9	8	22
23. Puerperal Fever		2	...	...	...	...	1	1	...	...	5
24. Other Accidents and Diseases of Pregnancy and Parturition		5	...	...	...	...	...	5	...	...	4
25. Congenital Debility and Malformation, including Premature Birth		57	56	1	...	...	...	...	...	...	11
26. Violent Deaths, excluding Suicide ...		21	...	1	2	2	1	5	2	8	19
27. Suicide		9	...	...	...	...	...	5	4	...	3
*28. Other Defined Diseases		381	11	2	5	3	7	8	90	255	135
29. Diseases ill-defined or unknown ...		2	...	...	...	...	...	...	1	1	...
Totals		1086	95	15	22	26	41	122	295	470	325
*Sub-entries included in above figures.	15 (*a*) Endocarditis, etc. ...	4	...	...	...	1	...	1	2	...	...
	17 (*a*) Influenzal Pneumonia ...	10	...	...	...	...	2	3	4	1	...
	(*b*) Broncho-pneumonia ...	22	6	4	5	1	...	3	2	1	3
	28 (*a*) Senile Decay	125	...	...	...	...	...	...	...	125	24
	(*b*) Apoplexy	99	...	...	...	1	...	1	29	68	26

TABLE D. (L.G.B. TABLE IV.)

COUNTY BOROUGH OF NORTHAMPTON.

INFANT MORTALITY DURING THE YEAR 1923.

Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under 1 year
ALL CAUSES Certified	37	5	4	5	51	17	9	9	9	95
ALL CAUSES Uncertified	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...
Chickenpox	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	2	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...
Diphtheria	...	...	...	...	...	...	1	...	...	1
Erysipelas	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	1	...	1
Abdominal Tuberculosis	...	...	...	...	...	1	...	...	...	1
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...
Meningitis (*not Tuberculous*)	...	...	...	...	...	...	...	...	...	...
Convulsions	1	...	1	...	2	...	...	1	...	3
Laryngitis	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	...	3	3	6
Pneumonia (all forms)	...	...	...	...	...	2	2	2	2	8
Diarrhœa	...	...	...	1	1	1	1	...	...	3
Enteritis	...	1	...	...	1	1	1	2	1	6
Gastritis	...	...	...	...	...	1	1	...	...	2
Syphilis	...	...	...	1	1	...	1	...	...	2
Rickets	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	...	...	...	...	...	...
Atelectasis	3	...	...	...	3	...	...	...	...	3
Congenital Malformations	5	...	1	...	6	1	...	...	1	8
Premature Birth	27	2	2	2	33	4	...	...	...	37
Atrophy, Debility, and Marasmus ...	1	1	...	1	3	5	2	...	...	10
Other Causes	...	1	...	...	1	1	...	...	...	2
Totals	37	5	4	5	51	17	9	9	9	95

	Nett Births Registered.				Nett Deaths Registered.				Infant Death-rates.		
	M.	F.	Total.		M.	F.	Total.		M.	F.	Total.
Legitimate ...	768	838	1606	...	49	40	89	...	63·8	47·7	55·4
Illegitimate ...	29	27	56	...	2	4	6	...	69·0	148·1	107·1
Totals	797	865	1662	...	51	44	95	...	64·0	50·9	57·2

TABLE E. NORTHAMPTON, 1923.

TUBERCULOSIS. (Copy of Report sent to Ministry of Health) SUMMARY OF NOTIFICATIONS DURING THE PERIOD FROM THE 31ST DECEMBER, 1922, TO THE 29TH DECEMBER, 1923, IN THE COUNTY BOROUGH OF NORTHAMPTON.

Age Periods.	Notifications on Form **A.**													Notifications on Form **B.** †					Number of Notifications on Form **C.**	
	Number of Primary Notifications.*												Total Notifications Form **A.**	Number of Primary Notifications.*				Total Notifications Form **B.**	Poor Law Institutions.	Sanatoria.
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Primary Notifications.		Under 5	5 to 10	10 to 15	Total Primary Notifications.			
Cols. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Pulmonary Males	...	...	2	2	8	12	17	12	11	7	1	72	75	...	...	...	...	...	...	63
„ Females	...	1	3	5	5	8	20	9	9	3	2	65	72	...	...	...	...	...	...	50
Non-pulmonary Males	...	5	2	...	1	2	2	...	...	...	...	12	14	...	1	...	1	1	...	1
„ „ Females	1	2	1	1	1	3	2	2	...	1	...	14	14	...	...	1	1	1	...	1

Patients notified as suffering from both pulmonary and non-pulmonary disease are included among the " pulmonary " returns only.

*PRIMARY NOTIFICATIONS relate to patients who have not previously been notified in this or former years, either on Form **A** or on Form **B**, in the area to which the return relates. Any additional notification of a case which has been previously notified in the area is regarded as duplicate.

†A School Medical Inspector, or the Medical Officer of Health of a county, county borough, or other district, if acting as a School Medical Inspector, is required to notify on Form **B** all cases of tuberculosis discovered in the course of inspection of children attending public elementary schools whether or not these have previously been notified.

Cols. 2—13. Only those cases which have been notified for the first time during the year on Form **A** in the area concerned, and which have never previously been notified in the area, either on Form **A** or on Form **B**, are included in these columns.

Col. 14. The object of this column is to show the extent to which duplicate notification of the same case occurs on Form **A**, and **all** notifications on Form **A**, whether duplicate or not, are included in this column.

Cols. 15—18. Only those cases which have been notified for the first time during the year on Form **B** in the area concerned, and which have never previously been notified in the area, either on Form **A** or on Form **B**, are included in these columns.

Col. 19. **All** notifications which have been made during the year on Form **B** in the area concerned, whether the cases have previously been notified in the area, or not, either on Form **A** or on Form **B**, are included in this column.

Col. 21. Only notifications on Form **C** made by the Medical Officers of Sanatoria, as defined in the Tuberculosis Regulations, 1912, are entered in this column. (This column includes the following figures for Welford Road Hospital:—36, 30, 0, 1).

TABLE F. NORTHAMPTON, 1923.

REPORT ON THE

Administration of the FACTORY & WORKSHOP ACT, 1901, in connection with

Factories, Workshops, Workplaces, and Homework.

1.—INSPECTION.

Premises. (1)	Number of Inspections. (2)	Number of Written Notices. (3)	Number of Prosecutions. (4)
FACTORIES (Including Factory Laundries and Bakehouses)	92	30	...
WORKSHOPS (Including Workshop Laundries and Bakehouses)	278	32	...
WORKPLACES (Other than Outworkers' Premises)	136	29	...
OUTWORKERS' PREMISES	182	8	...
Totals	688	99	...

2.—DEFECTS FOUND.

Particulars. (1)	Number of Defects Found. (2)	Number of Defects Remedied. (3)	Number of Defects Referred to H.M. Inspector. (4)	Number of Prosecutions. (5)
*Nuisances under the Public Health Acts :—**				
Want of Cleanliness	28	28	...	...
Want of Ventilation	...	...	...	...
Overcrowding	...	...	...	...
Want of Drainage of Floors	1	1	...	...
Other Nuisances	...	...	...	...
Sanitary Accommodation insufficient	3	3	...	...
Sanitary Accommodation unsuitable or defective	5	5	...	...
Sanitary Accommodation not separate for sexes	3	3	...	...
Offences under the Factory and Workshop Acts :—				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	62	62	...	...
Other Offences (Excluding offences relating to outwork which are included in Part 3 of this Report)	1	...	1	...
Totals	103	102	1	...

*Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3.—HOMEWORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.									OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists.	Prosecutions.							
	Sending twice in a year.			Sending once in the year.				Failing to keep or permit inspection of lists.	Failing to send lists.	Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	Prosecutions (Sections 109, 110).
	Lists.	Outworkers. Contractors.	Outworkers. Workmen.	Lists.	Outworkers. Contractors.	Outworkers. Workmen.									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
WEARING APPAREL :— (1) Making, etc.	4	...	31	3	...	8	...	...	...	8	8	...	11	...	..

There are no Outworkers in any of the other trades usually shown in the above table.
Figures given in Cols. 11 and 12 refer in each instance to premises requiring cleansing and whitewashing.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year. (1)	Number. (2)
Number of Workshops (including Bakehouses)	309
Number of Outworkers' Premises on Register	142
TOTAL Number of Workshops on Register	451

5.—OTHER MATTERS.

Class. (1)	Number. (2)
MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES :—	
Failure to affix abstract of Factory and Workshop Act (s. 133)	1
Action taken in matters referred by H. M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5): Notified by H.M. Inspector	...
Action taken in matters referred by H. M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5): Reports (of action taken) sent to H.M. Inspector	...
Other	...
Underground Bakehouses (s. 101) in use at the end of the year	1